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Symposium on Tuberculosis, page 671

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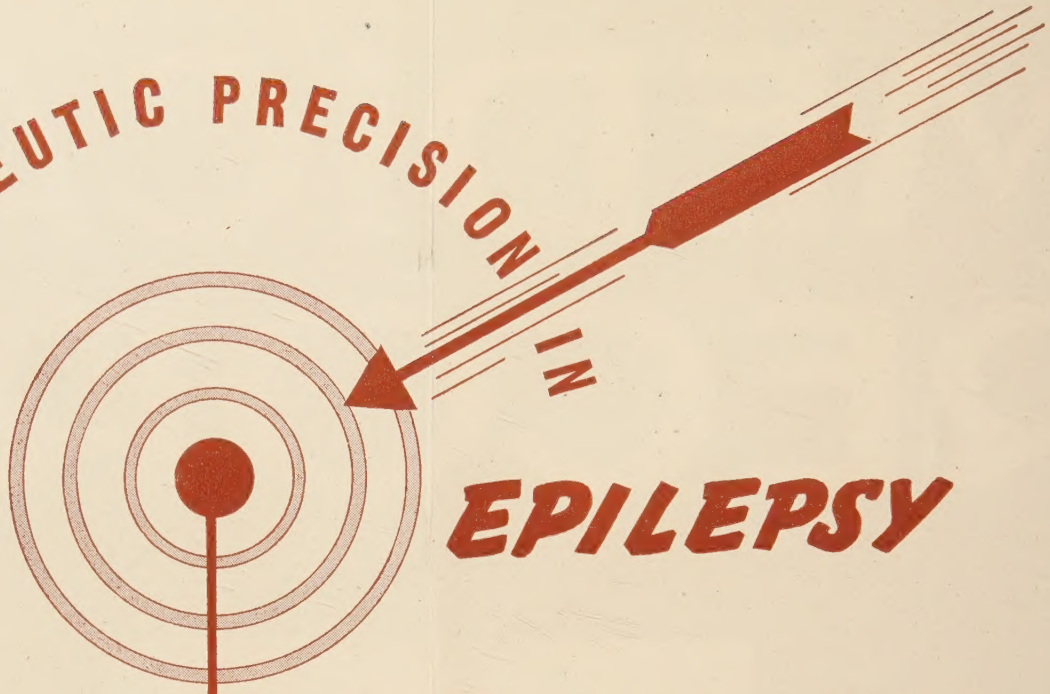
THERAPEUTIC PRECISION IN EPILEPSY



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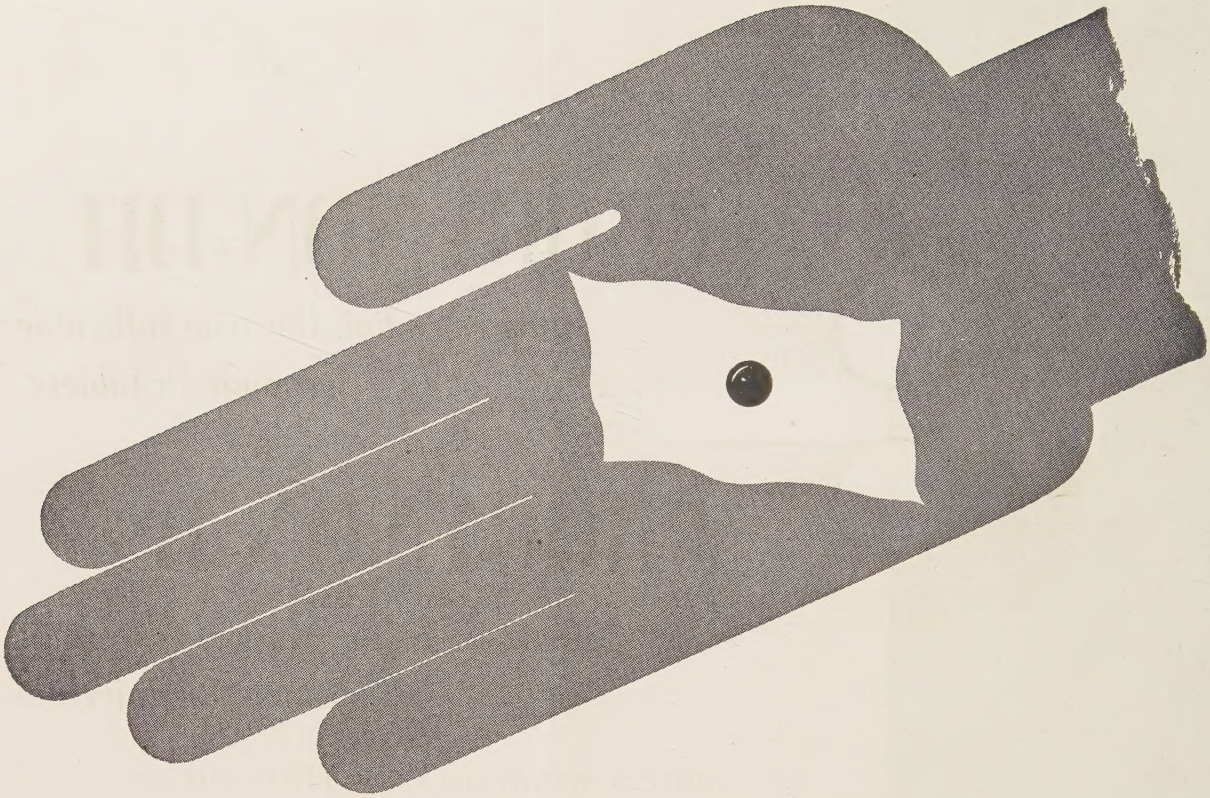

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NOVEMBER 1945

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Open Forum

An Individual Health Passport As Material Contribution To National Health

ALFRED JOSEPH, M.D.
New York, N.Y.

Our present system of vital statistics and the registration of communicable and occupational diseases is of unquestionable value. However, it is not satisfactory from the viewpoint of medical statistics, and even less under the broader aspect of preventive medicine. One strong setback is that these figures do not encompass mental abnormalities nor the noncommunicable diseases which will remain the greatest challenge to medicine long after the infectious diseases have been conquered.

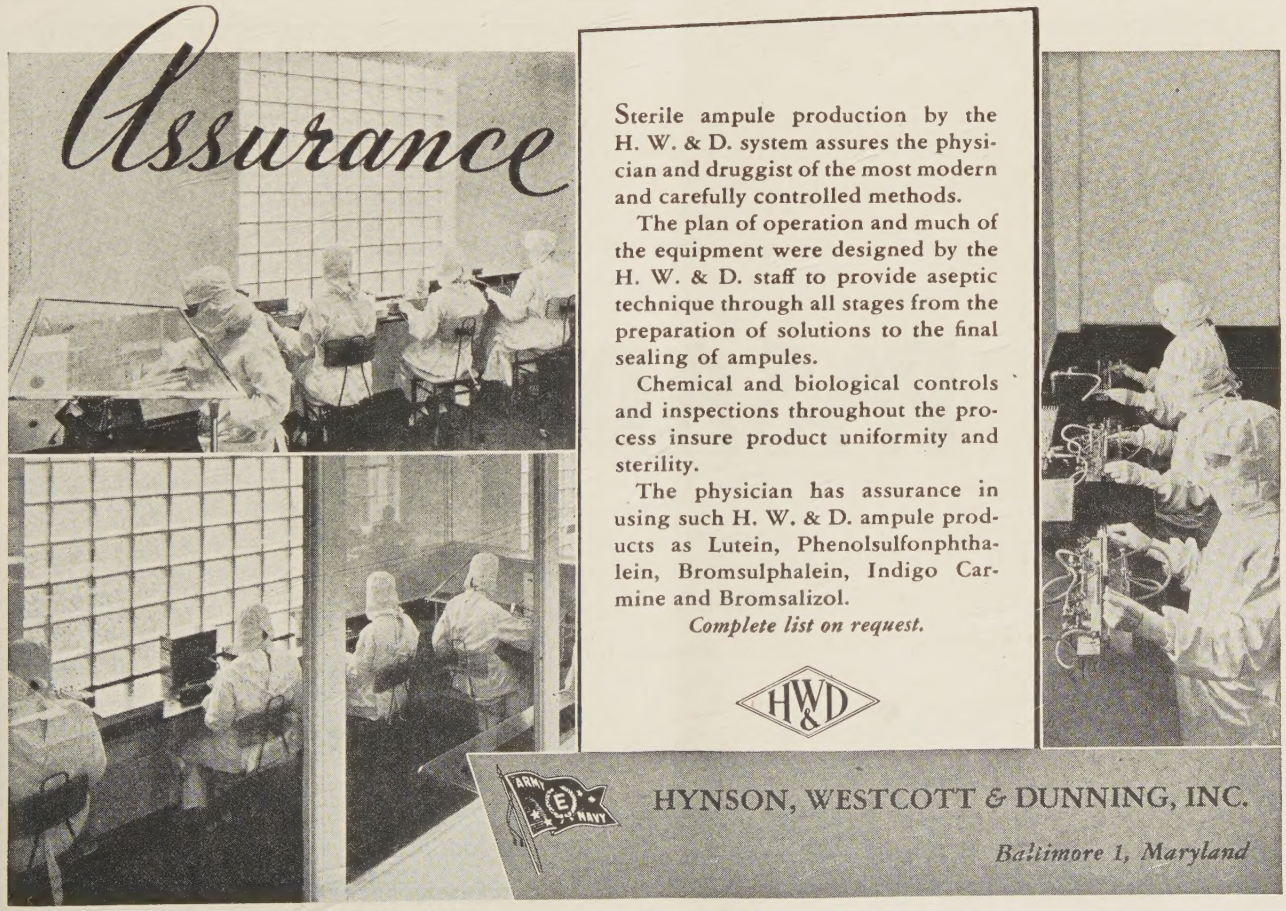
The following plan will eliminate this disadvantage and simultaneously provide the foundations for a universal continuous survey of the health standard of the nation. This project which is comparatively simple, rational and useful to the individual as well as to the community, calls for a program of recording the health condition of each and every citizen from birth to death.

While it is largely the task of the public health officers to control and conserve the sanitary welfare of the masses, the practicing physicians, with the aid of hospitals and medical institutions attend to the sickness and defectiveness of the individual during his life span. What could be more logical and advantageous than to coordinate these efforts in a nation-wide system of registration?

The practical procedure may be outlined as follows: For every newly-born there shall be issued a health passport (HP), containing about twenty indexed pages. This booklet will record the development of the infant and subsequently all significant deviations from normal health throughout life. Thus the first page would be reserved for data pertaining to the family history, listing race and nativity, possible hereditary traits, as well as incidence of tuberculosis, diabetes, arthritis, tumors, allergies, endocrinopathies, mental and/or nervous disorders in the family. The next page would register the circumstances of birth (premature, birth injuries, weight, congenital abnormalities). The following pages are prepared for recording the development (walking, speech, behavior, abnormalities) as well as childhood diseases and immunizations (dates, comments). Subsequent entries would be made at the occasion of the routine physical examinations during school and college.

At graduation or upon reaching the age of eighteen, every youngster would be requested to undergo an exhaustive physical examination which should be recorded in full: a comprehensive study of the somatic characteristics—general appearance, body type with measurements, color of eyes, complexion, etc., blood group, finger prints (optional), underlining abnormalities and defects, both physical and mental.

From then on, it is in the best interest of the health passport holder to keep his health account up-to-date and as complete as possible. Space is provided for brief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entries to be made at the occasion of periodical "check-up" examinations, illnesses, operations, accidents (including industrial diseases). This, of course, will require the cooperation of all practicing physicians, whether in private practice or institutions. It is understood that important clinical tests (such as the tuberculin test, blood counts, serological and biochemical tests, basal metabolism, electrocardiograms and the like) should be noted, as well as x ray findings. Account also must be kept of drug habits and alcoholism.

An appendix is designed to record the development of the teeth and dental abnormalities such as malocclusion, impactions, caries, pyorrhea; while a diagram of the permanent teeth serves to facilitate the registration of dental work.

At the demise of the person, his health passport together with the death certificate should be submitted to the Bureau of the Census. There the significant data will be transferred to special filing cards to be used in modern tabulating machines.

It must be considered that a good many people are likely to object to the introduction of this proposed health passport because they feel that it would interfere with professional secrecy and might expose the privacy of their physical existence. However, while it seems that everybody is able to safeguard this personal document just as well as his bankbook or his will, provisions can be made to avoid any misuse. The best precaution would be to list diseases and defects under a code number (similar to the International List of Causes of Death) so that a layman would hardly be able to decipher them.

The question whether the health passport plan should be recommended as a compulsory measure will not be discussed here since this constitutes a political issue. But it stands to reason that, given adequate publicity, everybody of average intelligence will visualize the importance and the personal advantages which this program entails. Thus it can be expected that many people soon would want to start such a health passport for themselves in adult life rather than wait for the benefits which its general adoption will bestow on the generations to come.

Advantages of Health Passport

To enumerate the individual advantages: The health passport holder as a patient is in a much better position, aside from the factor of saving time. As every doctor knows, it is often difficult, if not impossible to obtain a reliable and complete case history. Thus a patient presenting his health passport can be spared delayed treatment and unnecessary tests; in case of sudden illness, e.g., coma, diagnostic errors can be better avoided; therapeutic side effects such as allergic reactions will be reduced. Danger points such as tendency to high blood pressure, heart disease, etc., will be recognized better and earlier.

An added favorable factor is that the health passport holder is likely to take a more active interest in matters of health and sickness. He will seek information on origin, causes and prevention of diseases and gain a better appreciation of the efforts of medical science to improve his individual health standard and that of the nation.

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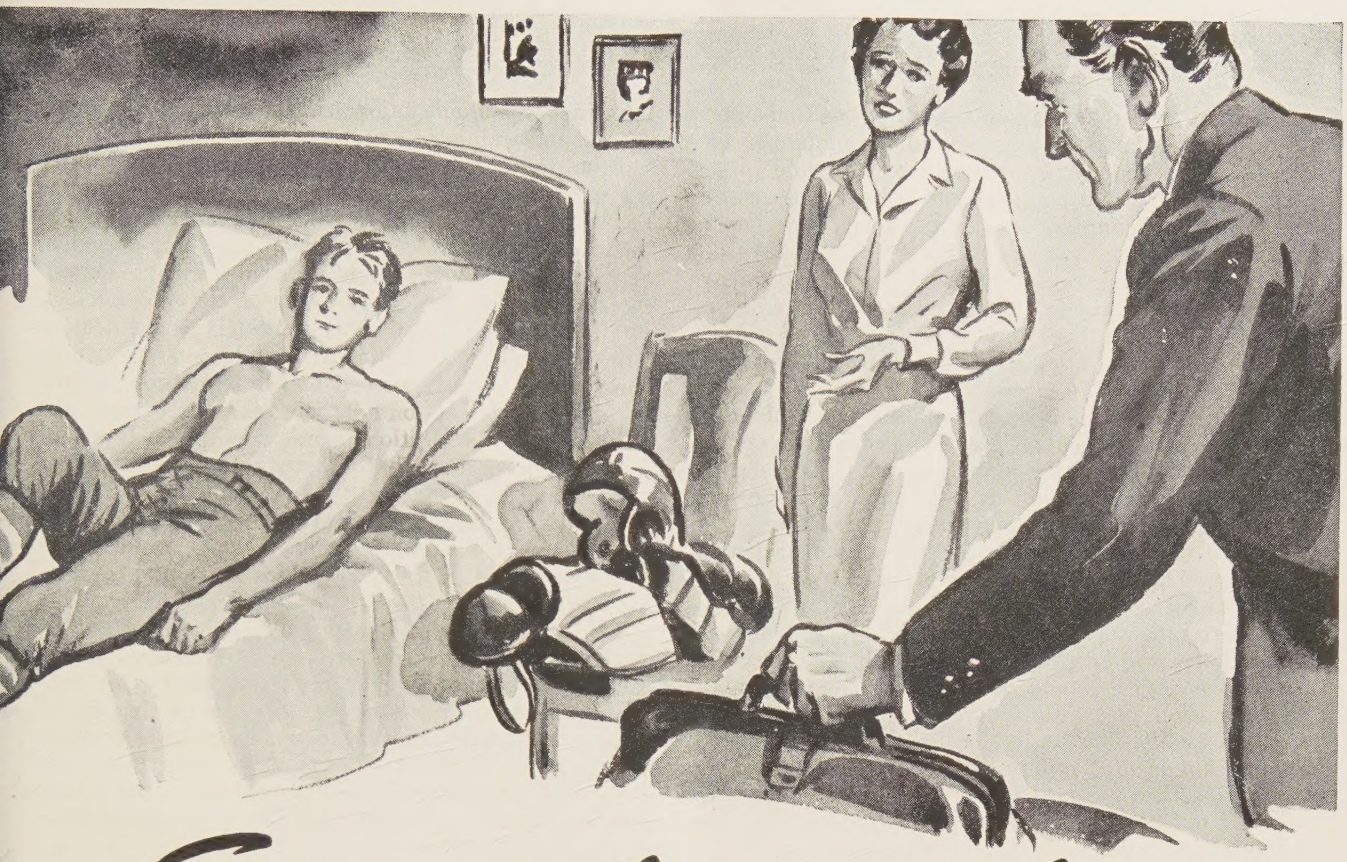

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From a general point of view, the health passport system would materially assist in determining the aptitude of the younger generation for labor and professions, and it would be of help to private enterprise in selecting applicants for specific positions. Its economic advantage to life and health insurance agencies is so evident that such corporations should take particular interest in this project. There is reason to assume that they might encourage its acceptance by granting special premiums to applicants who are health passport holders.

Far more valuable are the implications of the health passport program in the field of eugenics. There can be no doubt that in the interest of public welfare it is infinitely more important to make sure of the physical and mental fitness of prospective marriage partners than to be satisfied with a negative examination for syphilis. The time will come when even a wealthy nation cannot afford the luxury of nurturing an increasing percentage of mental defectives and persons with hereditary handicaps. Therefore the granting of a marriage license should be made dependent upon the presentation of a health passport which shows no evidence of serious heritable disease or defect and/or significant mental abnormalities. If regardless of such objections the partners insist on marriage, pregnancy should not be permitted, the preventive method to be determined by an impartial health agency.

In this respect, individual and common welfare are identical. Still in another field the merits of the health passport are apparent: in the interest of national defense. Undoubtedly it would simplify and facilitate the selection and organization of our youth for military service and training.

From the broader aspect of public health and medical science the consequences of this program are far reaching. The wealth of statistical material which could be accumulated and centralized in the short period of one generation alone, would be of tremendous significance. It would help to throw light on the epidemiology of all diseases, communicable or not. It would demonstrate the incidence, distribution and course of cancer and diabetes, arteriosclerosis and hypertension, arthritis, dental caries, etc. and their relation to race, age and sex as well as socioeconomic conditions. It would furnish reliable data on the hereditary background of many diseases, particularly mental afflictions. Besides it would be of benefit to anthropology and legal medicine. Last but not least it would help to evaluate the effectiveness of our therapeutic and prophylactic measures.

The overall cost of this program should be no obstacle to its materialization since the agencies which would take care of it have been functioning for decades. A slight increase in personnel, with the aid of modern automatic equipment, would be able to handle the added statistical work. On the other hand, the advantages are so numerous, the benefits to the future generations so considerable that this plan should take shape in the very near future.

May our country be the first to introduce this program and thus have a leading part in the progress of preventive medicine.

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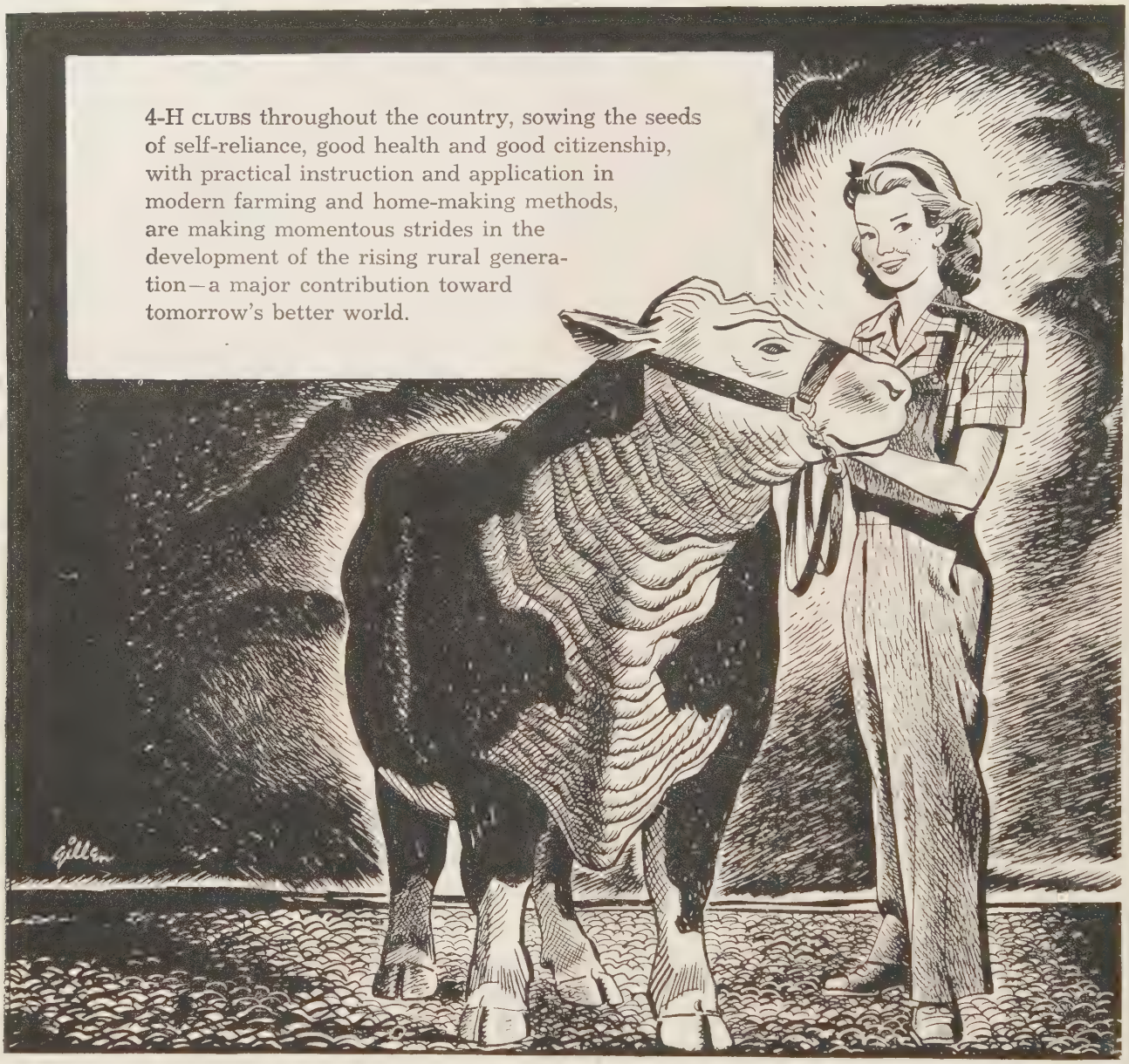
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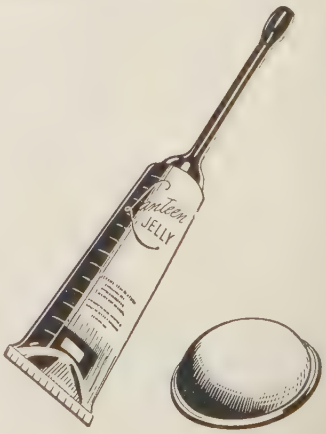

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Child Spacing a Basic Factor in Incidence of Stillbirths

Dr. Jacob Yerushalmy, principal statistician in the United States Public Health Service, recently made a study of 7,151,631 births occurring between 1937 and 1941 in an effort to determine the underlying factors in this country's stillbirth rate. More than seventy-five thousand American babies, he said, were lost each year through stillbirths. His findings emphasized that a period of rest and recuperation was essential to the average woman, and he concluded that "babies born either too close together or with too many years intervening have less chance of being born alive than those spaced at moderate intervals". The study, which is reported in detail in the September issue of *Human Biology,* showed that the lowest stillbirth rates do not occur among the youngest mothers where youth might be expected to be the dominant factor. It is relatively high for mothers between the ages of fifteen and nineteen years (33.7), drops to 23.3 for mothers between twenty to twenty-four and increases thereafter with the age of the mother to 56.2 in the forty to forty-four age group.

The theory that it is better for a mother to have her babies at well spaced intervals rather than "having them all close together while she is very young" is further supported by the fact that the lowest stillbirth rate for second births occur in the age group of twenty to twenty-four. For third, fourth and fifth births the lowest rates are registered in the age group twenty-five to twenty-nine. For sixth, seventh and eighth babies the lowest rates are those of the thirty to thiry-four year old group and for twelve or more babies, the *oldest* mothers are found to have the best chance of having their babies born alive.

Not only do the older mothers have the best record when a number of babies have been born (presumably at moderate intervals during their married life) but the extremely young mothers do not have a favorable showing for *any* parity (number of births) classification. Even among second births, the best rates do not occur at ages fifteen to nineteen but at ages twenty to twenty-four. Thus, regardless of the age of the mother or the number of children born, Dr. Yerushalmy concludes that the interval between births is a basic factor in the incidence of stillbirth.

Overseas Assignment of Army Doctors.—Only Army doctors who have not yet been overseas will be given assignments in foreign theaters under the Medical Department policy, according to an announcement by Surgeon General Norman T. Kirk. The same plan will be followed with reference to dentists, nurses, and other officers of the Medical Department. The age limit for any officer who is to be given an overseas assignment ranges from forty years as the maximum for doctors and dentists down to thirty years for nurses, dietitians and physical therapists. The point score for doctors and dentists is below 45, for nurses below 12, and for dietitians and physical therapists below 18. This revised policy on overseas assignments is part of the new separation program just announced by which more than 13,000 doctors, 25,000 nurses and 3,500 dentists will be released from military service by the end of the year.

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The average dose for adults and children over 12 years is one tablet 3 times daily; or as indicated by the condition. For children under 12, one-half tablet. For babies or very young children, one-fourth to one-half tablet may be crushed and dissolved in milk.

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Prompt Release of Medical Personnel Urged

Major General Normal T. Kirk, Surgeon General of the Army, has expressed the desire that all commanding officers give the fullest possible cooperation towards effecting the early release of Medical Department personnel who are eligible for separation from the service under the announced policy.

He also urges that all Medical Department personnel occupying key positions and who are eligible for separation under the present criteria volunteer to continue on active duty to assist in maintaining the present high standards of medical care if no replacement is immediately available. It is contemplated that a period of six months' duty will be sufficient to allow for the arrival of a replacement or for training an officer to take over duties of key positions and thus allow all officers eligible for release to be returned to civilian life. He requested that commanding officers make every effort to obtain replacements for Medical Department personnel eligible for release in order that those officers might be returned to civil life at the earliest possible moment.

Under the announced Medical Department demobilization policy, Medical and Dental Corps officers are eligible for release providing they meet any one of the following criteria: (a) Adjusted service score of eighty or above. (b) Forty-eight years of age to the nearest birthday or above. (c) Entry on active duty prior to Pearl Harbor excepting critical specialists qualified in eye, ear, nose and throat, plastic surgery, orthopedic surgery, neuropsychiatry or laboratory clinicians. Officers qualified in these specialties are eligible for release if they entered on active duty prior to January 1, 1941 or if they meet the criteria on points or age.

This revised policy on separation is expected to return 13,000 physicians, 3,500 dentists, 25,000 nurses and a large number of other Medical Department officers to civilian life by the first of the year.

It will be necessary to retain a large number of low score men in the service for replacement for overseas men having high ASR scores. Other low score men must of necessity be retained in the service to carry on the necessary activities of the Medical Department in this country and in theaters where American troops are operating. It is intended that no one eligible for release will be held in the Army because there are men with higher scores overseas who have not been returned home. Eligible men will be discharged as rapidly as they can be processed for separation.

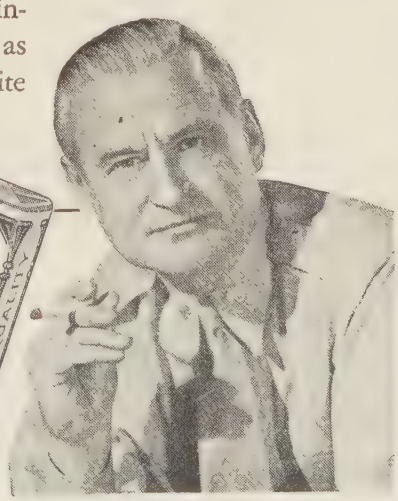
No enlisted personnel with a sufficient number of critical points will be kept because of "military necessity" except those very few men classified in one of three essential technical skills. These are orthopedic mechanics, electroencephalographers who operate electrocardiac equipment, and radio transmitter attendants.

American Association for the Advancement of Science.—After an investigation of the possibilities of holding a meeting during the coming winter or spring, the American Association for the Advancement of Science decided to hold a general meeting in St. Louis, Mo., March 27-30, 1946, according to *Science*. Conferences of secretaries of sections of the association and of affiliated societies have been held in New York and Chicago to discuss plans for the meeting.

DOCTOR *of the Purple Heart!*

The Purple Heart—awarded to persons wounded in action against the enemy

THE GUNS are silent once more. For the men with the guns, the war is over. But for the thousands of medical men in the service, the war still goes—their "war in white" in behalf of the wounded, the wearers of the Purple Heart. Doctors that they are, of medicine and morale, they well know how much a cigarette can mean to an invalid soldier. And servicemen that they are, as well, these doctors know what a big favorite Camels have been, and are, with men in all the services.



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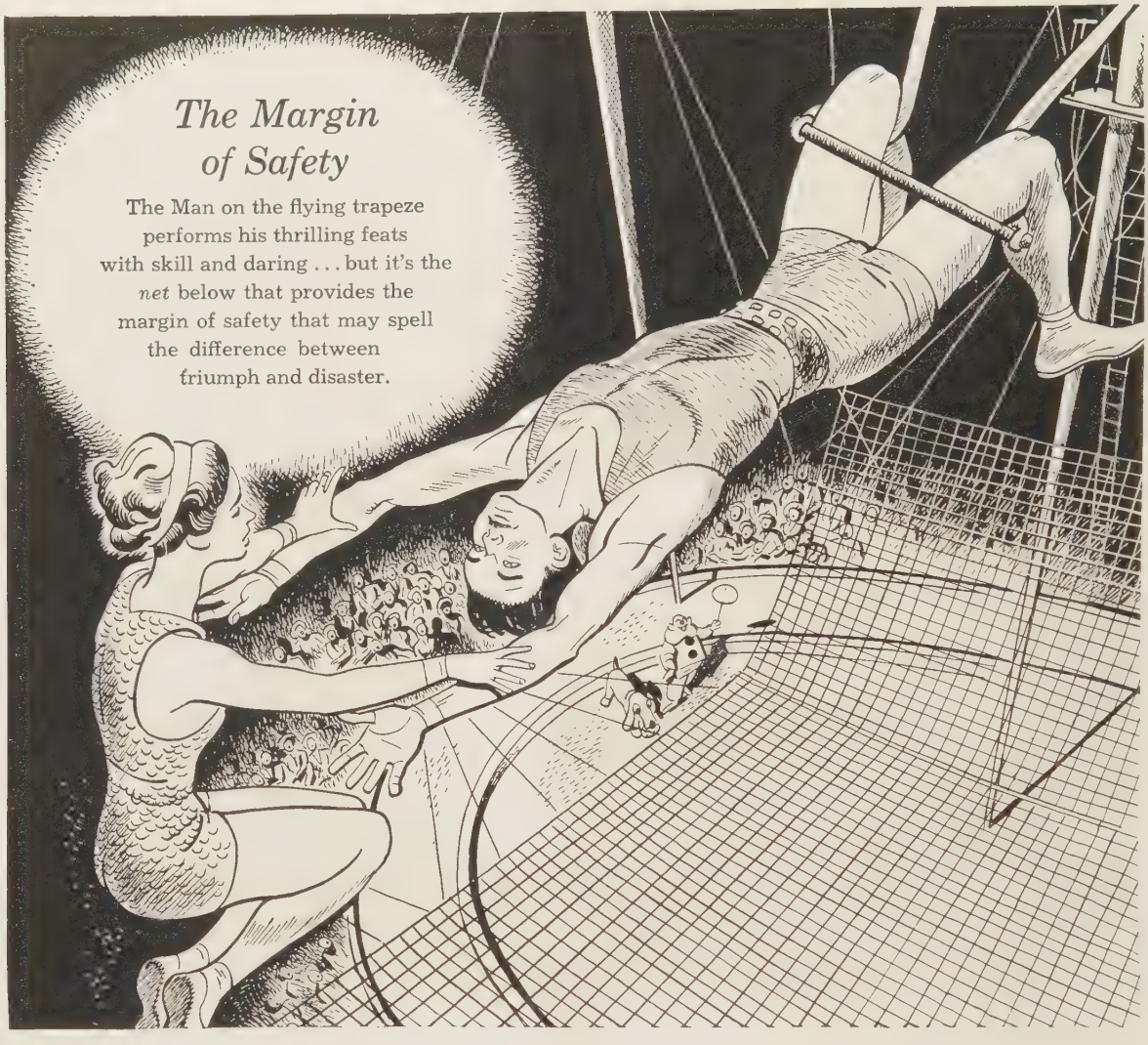
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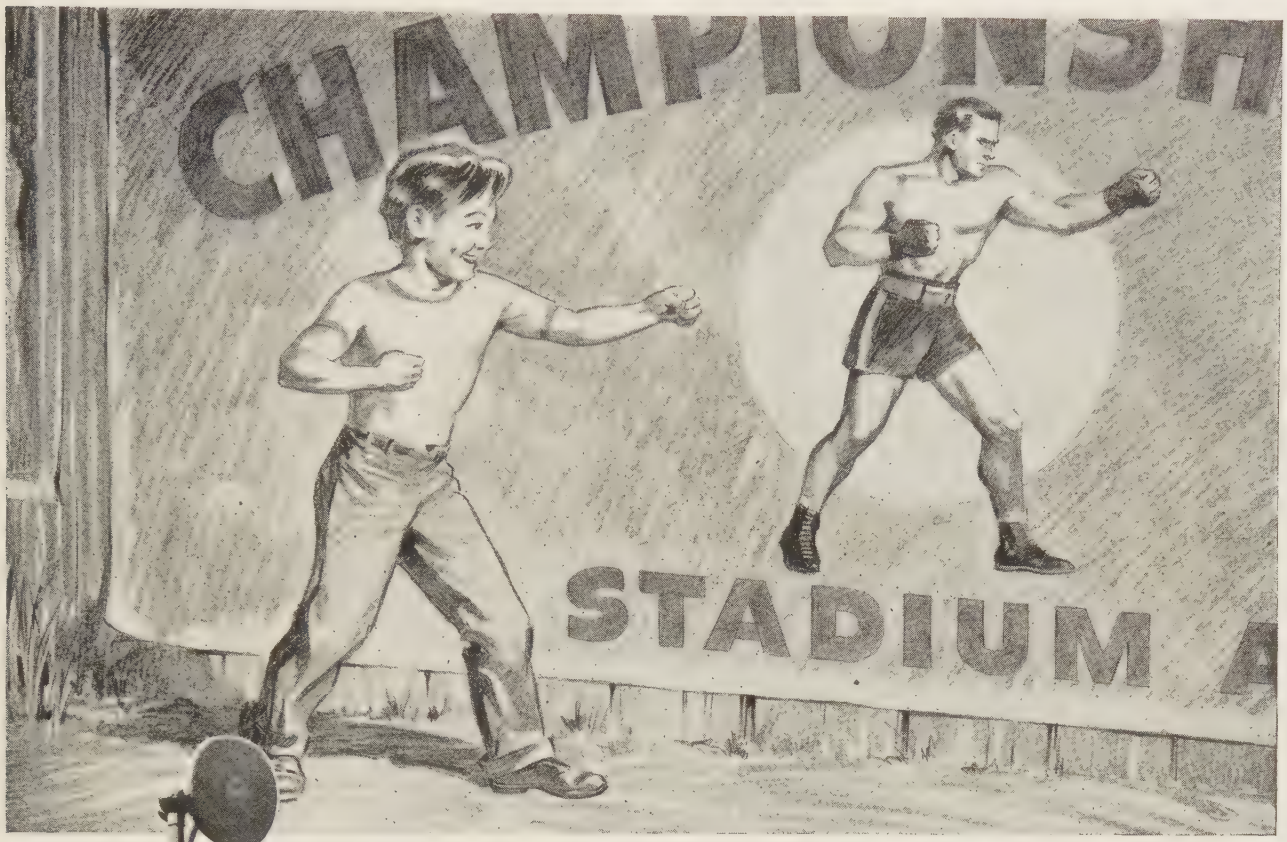

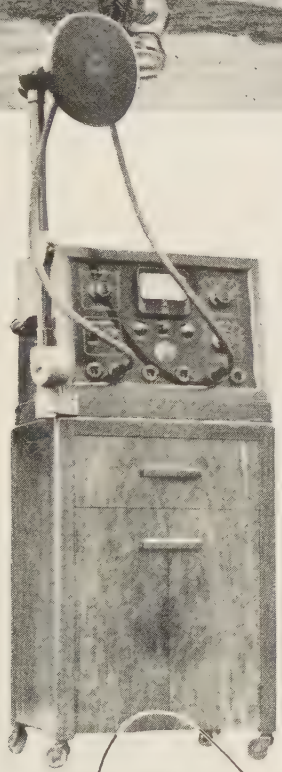

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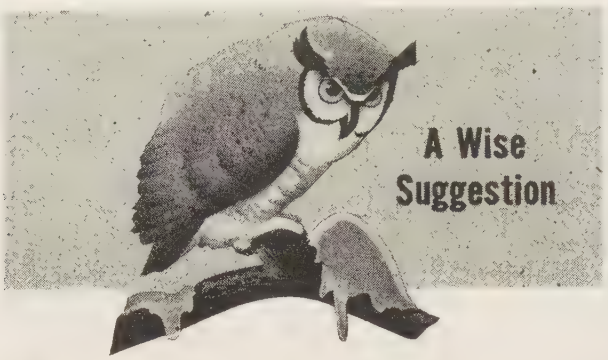

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The Improvement of Artifical Limbs

An intensified program for the improvement of artificial limbs, which involves six separate projects, will be undertaken by the Army in coordination with the National Research Council, according to an announcement by Surgeon General Norman T. Kirk. In February of this year the National Research Council through its Committee on Prosthetic Devices, which comprises some of the country's outstanding scientists, started work on the problem of providing better arms and legs for amputees. Cooperating with this committee are the Veterans Administration, Navy, Army, National Bureau of Standards, Federal Security Agency and engineers from important industrial concerns. The research activities of the Committee on Prosthetic Devices will continue along the same lines but the Army will give further cooperation in certain additional phases of the program. The plan of Army scientists is to complement what is being carried on under the National Research Council auspices.

The Army will conduct its research work at Army General Hospitals which are amputation centers. The presence in these hospitals of orthopedic surgeons who are handling these amputation cases and the clinical evaluation possible under such circumstances is expected to prove of definite value. The aim of both projects is the general improvement in the quality of artificial limbs, more standardization of parts and the facilitation of production and fitting.

The six phases of the program in which the Army will devote its efforts include: 1, further development and improvement of knee assembly and ankle assembly; 2, investigation of materials for producing a cosmetic hand or for covering a mechanical hand; 3, evaluation of usefulness of plastics in sockets or limb sections; 4, broad study of metals and alloys used in fabrication of artificial limbs; 5, investigation of fabrics and techniques of manufacture and fitting for prostheses at or below the ankle; 6, production of a motion picture record of the Army amputation and prosthetic program.

An appropriation has been authorized sufficient to continue this Army project as long as The Surgeon General expects to have amputee cases in Army General Hospitals. There have been about fourteen thousand amputees in Army General Hospitals in this country since the beginning of this war. Of this total there are now about 8,300 amputees who are in the six amputation centers in Army General Hospitals. Five percent of these cases represent battle veterans who have lost two arms or legs or one arm and one leg, nine are triple amputees and only two men have lost both hands and both feet. Approximately ninety-five percent are men who have suffered the loss of one limb.

Public Health Conditions in Germany.—In a report to the United States Joint Chiefs of Staff, dated August 20, 1945, General Eisenhower said that, in general, the health conditions of the civilian population in Germany are good. Due to damaged water and sewage systems, some local epidemics of dysentery and typhoid fever have occurred, but typhus incidence has declined. Loss in body weight has resulted from the low general level of food consumption, the average daily diet for normal adults is estimated at between 1,150 and 1,730 calories; displaced persons have been receiving a minimum of 2,000 calories.

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In psoriasis standards of control are clear and specific. RIASOL meets these specific standards because its effectiveness in psoriasis is visually apparent.

Even in many previously resistant cases RIASOL clears the psoriatic lesions quickly. Used as directed, recurrences are minimal.

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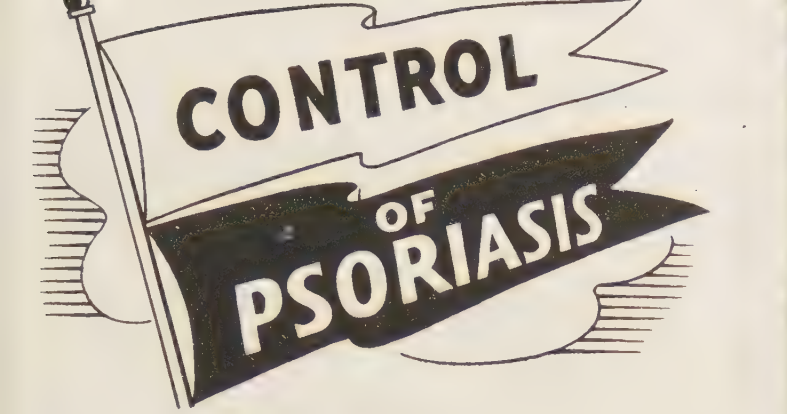
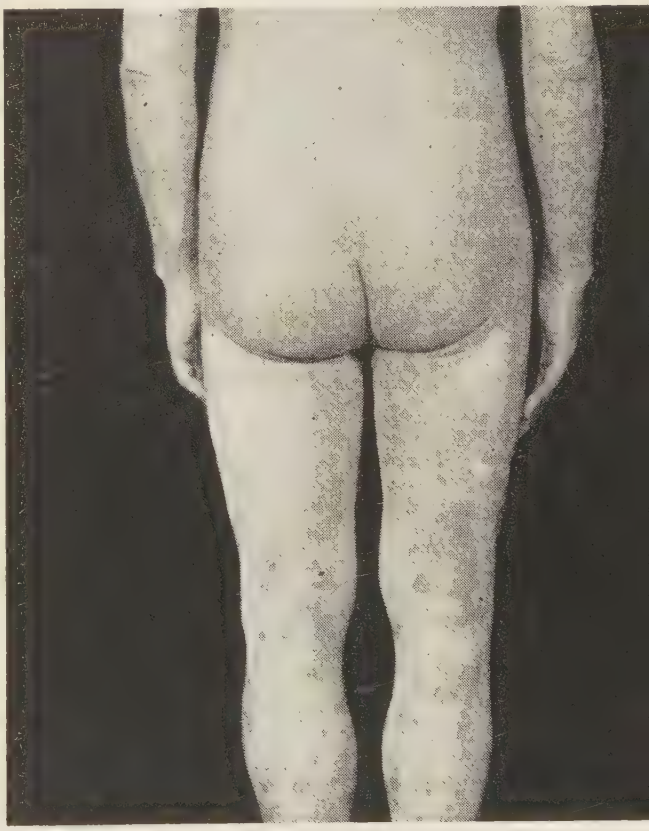


Before Use of Riasol Treatment



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RIASOL for PSORIASIS

Letters of Fielding H. Garrison

SOLOMON R. KAGAN, M.D.

Boston, Mass.

(*Continued from page* 598)

Oak Bluffs, Mass., June 25, 1925

Dear Doctor Robinson:

The enclosed MSS explain themselves. Hemmeter's is too late, and I think the one I sent is more viable and practicable. He wents reprints (!?) which (I have written him) I must leave to you and him, as I have no financial relation to the book. None of the rest of us want them or will ask for them, as you, like the rest of us, are doing this for Sudhoff, and the royalties, if any, will, I presume, go to him. I am therefore strong for halving the Salerno MS, as by Hemmeter and myself. I took a good deal of trouble with my part and have curry-combed the English of every one of them anyhow. I don't see that his revision would help much, as his diction is ponderous. Please read over the enclosed addition to the foreword and have it inserted somewhere. We shall have to acknowledge, too, the hygiene essay as reprinted from the *Annals* and the History of Syphilis as from the *Chicago Bulletin*.

I will see you on Sunday. With best regards,

F. H. Garrison

* * *

June 12, 1926

Dear Doctor Robinson:

If not asking too much, I should appreciate it, if you could send a copy of the Sudhoff book over to Dr. Emanuel Libman, 180 East Sixty-fourth Street, New York, who is interested in the history of clinical medicine, and is keen to get hold of some book or books which would activate him along the lines on which Ebstein is working. I think Sudhoff would give him the impetus he is after. Meanwhile, I have the two extra copies of the book which you sent me and could return one of these eventually, in lieu of the above, along with the big two-volume medical dictionary which you kindly lent me when I was in Manila. I use this a good deal still, as the Sanders I had and have is so heavy as to be unwieldy for rapid work, but I will return it eventually. Will you kindly enclose the card herewith, which will save me the usual bothersome administration in inscribing and mailing.

Thanking you in advance, and with best regards,

F. H. Garrison

* * *

May 31, 1926

Dear Doctor Robinson:

If you have not yet sent out the copies of the Sudhoff essays which I recommended, will you please mention the names I gave, as I should like to revise the list. I judge that the volumes have not yet gone out, as Ruhräh and other contributors have not yet received a copy. I have forgotten the names I gave, and regret to trouble you about this.

With best regards,

F. H. Garrison

* * *

October 15, 1926

Dear Doctor Robinson:

Thanks for your letter of October 13th. It was very generous of you to send out all those books, and mighty shabby of the recipients not to acknowledge them to you. One of the number, whose name I crossed out, is a religious bigot of incredible narrowness, or perhaps a man of small, arid nature who uses religion as a cloak for arrogance, but I judge that it is not necessary to go into further details. I will get after some of the others about acknowledgments and reviews and have already heard from Cushing, who, I hope, will write a review in due course. Let me know when the H. book is ready and I will send check, or before if you choose. Should it be made out to you or to Med. Life Press?—inferentially to you.

With best regards,

F. H. Garrison

* * *

November 1, 1926

Dear Doctor Robinson:

Please pardon delay in acknowledging receipt of the two volumes you have kindly sent. The Fox book looks very interesting to me and I have placed the other. I have a nice letter from Neuburger about the Skizzen, which he has received. I hope he can be as well represented by a round-up of translators. I will ask him to furnish a list of his essays when I write, but the trouble is that his most arduous work and sometimes his best writing have gone into his textbook and into very learned monographs of fair dimensions. He has never enjoyed the plain air travel which has been Sudhoff's portion and his work has been done by the lamplight and alcove, under rather depressing circumstances. However, we shall see.

With best regards,

F. H. Garrison

* * *

November 12, 1926

Dear Doctor Robinson:

Thanks for your letter. In a little while I shall send you a complete list of Professor Neuburger's writings corrected by him. I am afraid you will have to assemble the translations of the articles that may be selected, as I shall be very busy during 1927, but I shall be glad to give any advice and assistance I can and to round up translators by personal touch where possible. Neuburger's elegant literary style ought to make for facility in translating, but most all his things are very learned and very long. You will have to get some expert to revise the renderings. I simply could not go through that ordeal again, indeed should not have the time now—perhaps Radin. The Latin citations will make difficulty—perhaps you might make a selection of some essays and of effective passages from others, as the French do.

With best regards,

F. H. Garrison

I shall be glad to write the introduction, but that is a long way off.

* * *

February 14, 1927

Dear Doctor Robinson:

Dr. Fallon has written two reviews of the Sudhoff book, both which, I hope, will see the light.

I hope you will be able to do something for Prof. Neuburger and if you can find any people to do translations, I have now a batch of reprints from him, some of which might be used for that purpose. I regret that I am in no position to do more than advise. In fact, I am not very well just now.

F. H. Garrison

* * *

Dear Doctor Robinson:

Many thanks for the copy of the Hemmeter book, for which I enclose subscription check. It is very well done, well illustrated and a great credit to you.

The enclosed bibliography awaits Prof. N's final fiat. It needs also a good deal of careful editing before it can get into print, e.g., all the checked items need correct abbreviation, place of publication, date, volume and pagination, and I don't know when I can get around to this. If you could get someone to look up some of these items and fill them in properly, it might help some. The idea would be to print the bibliography and incidentally set up a mild Macedoni—an cry for volunteer translators. I have rounded up a few, but don't know how many will be really dependable. If you think it would help Prof. N's case any to ask Hoeber if he wants to try such a book, you might ask him. You and I are only interested at bottom in helping Prof. N. and I unfortunately have so little time now that I can only activate a little, at most. Checked in ink are articles which might be available or viable for English dress.

F. H. Garrison

* * *

July 2, 1927

Dear Doctor Robinson:

Many thanks for your kind letter of June 28. I will arrive in N.Y. on Monday, July 4 and will call you up as soon as I get settled. I am glad to learn that you can be present at the Leyden Congress and am glad that I can see you before you sail, if only to entrust to you one or two verbal message to colleagues over there. I have just written a long letter to Sudhoff, but forgot about the coming Congress. I think we shall be able to round up enough translations from Neuburger to make a presentable volume, and only wish he had written a few more shorter and viable essays. I have good hopes of a translation of his History of Antitoxic Therapy, which ought to have been Englished long ago, and which will cover enough space to make a small volume (50-75 pp.), no matter what else may or may not come in.

F. H. Garrison

(*To be continued*)

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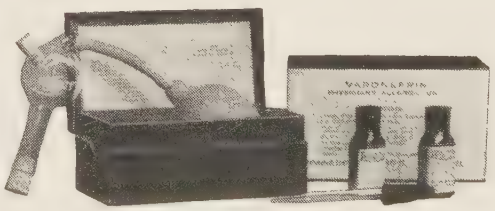

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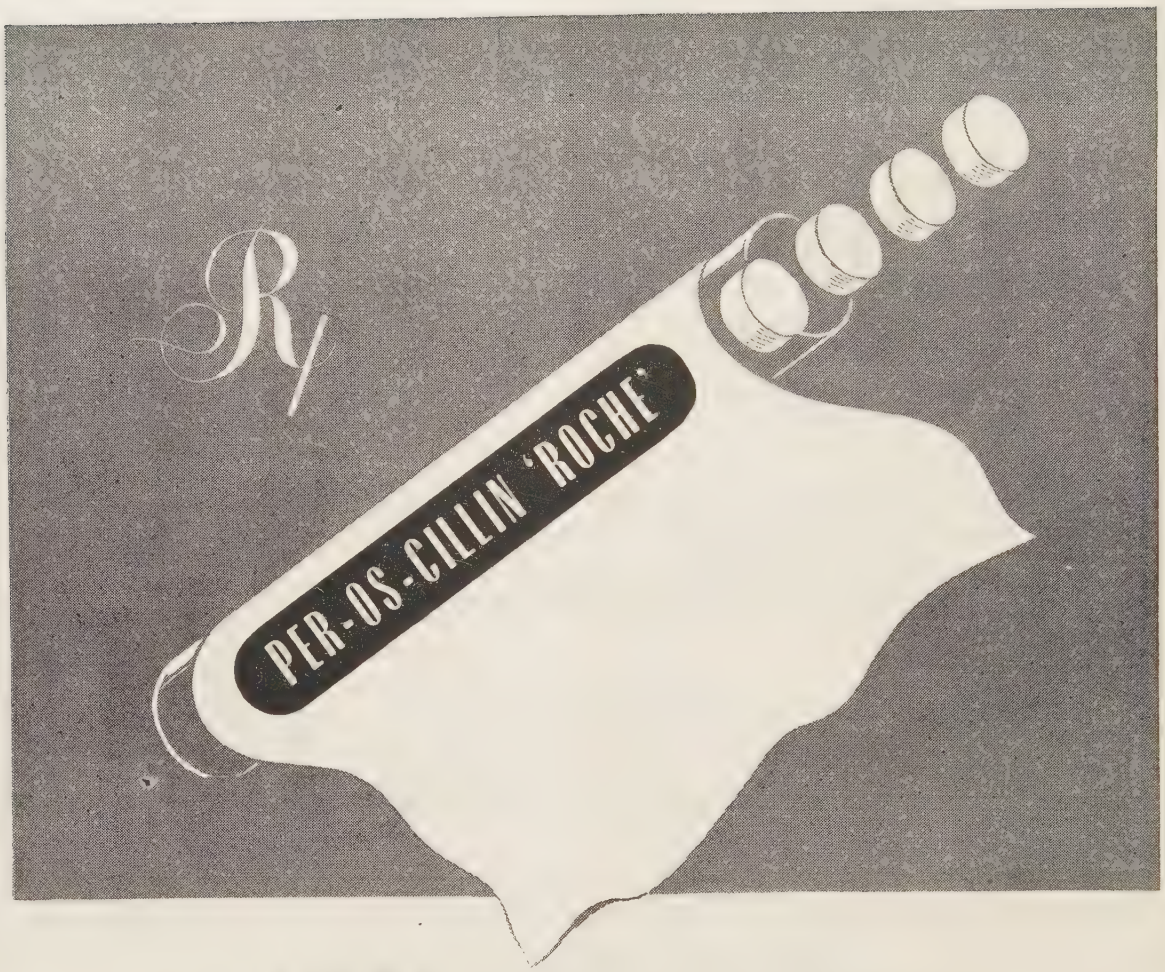

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* For approved uses of oral penicillin see C. S. Keefer, et al., J.A.M.A., 128:1161, 1945

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MEDICAL RECORD

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AT THE SUNSET OF LIFE

A Review of Gerontology and Geriatrics

MAURICE CHIDECKEL, M.D.
Baltimore, Md.

With the limitless opportunities for study of the diseases affecting those who have passed the meridian of life, one wonders why so little research is being done in the retrogressive alterations in the anatomy and physiology of the aged, and in their mental and physical changes. With the obvious fact that longevity, with health, prolonged usefulness and productivity, is an incalculable asset economically, that longevity without health is a dangerous economic burden, why has the medical profession as a whole remained cool until now towards the study in geriatrics, and by this neglect permitted the aged to assume a defeatist attitude? Why have most of the advances in medicine been directed towards the early age, and why have no intensive studies been made in the methods and means of prolongation of life, and in the preservation of mental acuity in the old? Why has the vast and unutilized reservoir of constructive effort resident in the millions of aged men and women been allowed to lie dormant and eventually die out?

Let us assume it to be a fact that senility and death begin in the early process of embryonic development: that the vascular system, which plays such a great rôle in the aging process, is constantly changing, and each step in such modification is a move in the inevitable march from conception towards death. But it is also a fact that longevity and the functioning of mentality depend, partly at least, on environment; that man can learn to control environment by coordination of social and individual effort; and that by preventing and controlling chronic and incapacitating diseases of middle age and after, and by the avoidance of mental bankruptcy in the old, the duration of life could be lengthened to at least seventy-five, and means found to keep the physique and mentality of the aged person in a healthy state. Merely to increase the length of life without the prevention of mental deterioration—to have a living body and a nonfunctioning mentality—is more calamitous than death.

The men of the remote past, of the later periods and of the present generation, who were characterized by a genius which remained productive in extreme old age—Hippocrates, Plato, Michaelangelo, Titian, Belini, Darwin, Faraday, Crookes, Kelvin, Browning, Tolstoi, Tennyson, Disraeli, Verdi, Franklin, Welch and countless others—are no sporadic examples of intellectual vigor maintained in advanced life. One meets in his daily practice men and women of eighty, and over, who are physically well preserved and mentally unimpaired. Are means to be found by which mental and physical decay can be prevented?

The most heartrending tragedy of advanced life is senescence. What are the factors leading to senescence? Are they hereditary, constitutional, carried by the genes of the chromosomes? Are those factors caused by nutritional deficiencies in infancy? The fact has long been established that heredity and environment modify cellular chemistry, influence changes, and hasten the age at which senescence first appears. Heredity is also a factor in longevity, in the maintenance of health in old age and of premature degenerative changes. Nutritional deficiencies undoubtedly play a major rôle in the offspring. Undernourished women are more apt to have spontaneous abortions, to have more stillbirths, and their children born alive are not strong.

As the human constitution is influenced by the genes inherited from its parents, by the health of the parents at the time of conception, the foundation for senescence may be laid at the time of physical union. Teeth undergo premature changes of aging by improper diet. Hence nutritional deficiencies during the formative years may also be one of the causes of mental weakness in the old. Ill clad and ill fed people live less normally and are more subject to malignancy.

Liver function is essentional for a healthy mentality. Deficiencies of cystine and other unidentified proteins may hasten senescence. An unbalanced endocrine system will influence the cerebral make-up of the individual. Tyrosine is necessary for the normal functioning of the thyroid, pituitary and adrenals. Deficiency of tyrosine may or will hasten senescence. So will atherosclerosis which is caused by a disordered cholesterol metabolism, more so in those whose diet contains fat in amounts not in proportion to its carbohydrate, proteins, vitamins, essential amino acids and mineral contents. Infections, such as cholecystitis and tonsillitis, may modify cellular chemistry by inactivating catalysis, by inhibiting their formation, or by interfering with secretions and actions of hormones. The sulfa drugs were stated to influence unfavorably cellular tissue in the aged and lead to permanent mental damage. The indiscriminate use of alkalies, bringing about alkalosis and renal damage may be one of the causes of mental deterioration.

Senescence, therefore, is due to a disturbed metabolism which may be caused by, 1, heredity; 2, nutrition of parents at time of conception; 3, health of mother during pregnancy; 4, nutritional deficiencies during the formative years; 5, nutrition during mature life; 6, illness during adolescence, for instance, diabetes, atherosclerosis and other degenerative diseases; and 7, environment. Whether we can or cannot prevent involution, whether senescence is or is not a normal process of the living cells, we should at least be able to eliminate the factors leading to it.

No one specializes in geriatrics, and it is doubtful whether anybody ever will. No man or woman will want to be treated because he or she is old. The man who treats the world to be, the pediatrician, is always sure of a large practice. The man to specialize in a world that was, the geriatrician, will not have sufficient practice to keep him alive. It remains for the practitioner to understand the old man and woman, to make inventories of their body systems, to strive to prolong usefulness, to inspire the aged with a will to live and to imbue them with self-respect. We must be aware that in old age the organs suffer in silence because of diminishing nerve sensibility and excitability. There may be appendicitis, peritonitis and strangulated hernia without pain. Pneumonia may exist with little pain in the chest and little, if any, rise in temperature and pulse rate. The aged patient may be just drowsy, apathetic, prostrate or restless. Chills are rare in such infections in the aged as influenza, pneumonia or pyelonephritis. The onset of diabetes is invariably without symptomatology, but it becomes acute after a certain length of time.

Pathological Conditions in the Aged

The absence of gastric acidity increases with age. Hypochlorhydria is common in advanced life, and is probably dependent on a symptomless atrophic gastritis. The enzymes, too, are diminished. Peptic ulcer is quite common between fifty and eighty. Many manifest the first symptoms of gastric or duodenal ulcer after sixty. Hyperacidity in ulcer is not as marked in the aged as in the young, nor is pain of equal severity. Achlorhydria may produce definite anemia in the aged.

The question of blood pressure in advanced life has become a subject of controversy. The statement has been made that systolic hypertension in the old is the result of diminished elasticity of the aorta and its large branches usually associated with atherosclerosis. Because of loss of distensibility of the vessel wall the arterial pressure becomes elevated with each ventricular systole, and the diminution in the elastic recoil in the aorta tends to produce a lowering in the diastolic pressure with further increase in blood pressure. Hypertension then is physiological in the aged, yet careful study by many workers has brought out the statement that normal blood pressure does not rise with advancing years. According to some insurance underwriters, the blood pressure at the age of twenty is normally 120/79 and at sixty-five 138/65. According to Alvarez and Stanley a systolic pressure of 115 is normal and 140 abnormal in the old as in the young. The same view is held by Robinson and Brucer who state that the range of normal blood pressure must be considered as immutable and as constant as temperature and pulse rate. Russek, after making a study of one thousand aged persons, declared that a rise of systolic pressure in the aged, who are free from cardiovascular diseases, does not influence health or life expectancy.

Cholesterol studies are of utmost importance in the old, because the mechanism of arteriosclerosis, thrombosis, coronary artery disease and cerebral hemorrhage depends upon a disturbed cholesterol metabolism. Cholesterol fed to rabbits brought about atheromatous changes in the heart valves and in the intima of the great vessels. All arterial changes are associated with an increase of cholesterol esters in the blood. It is well to remember that in liver damage cholesterol esters may disappear from the blood together with a reduction of the hippuric acid, depending upon the degree of damage to the hepatic cells.

Obesity in the aged is of great importance. It does not necessarily signify thyroid deficiency. The hypothalamus is supposed to contain a fat regulating center wherein feelings of hunger originate and bring about an increase of appetite in the absence of exercise. Obesity is important because of its association with diabetes, degenerative changes, and arterial, cardiac and gallbladder diseases. Leucocytes and casts are often found in the urine of the aged without being pathological. One of the diseases that increases in frequency with advancing years is gallstones. Autopsies performed on persons past eighty showed almost uniformly the presence of gallstones. Diverticulitis is also quite common after sixty, and inflammation of the intestine is on the increase in elderly people.

The skin disease which is confined to the aged is senile atrophy. The change is gradual. The skin becomes lax and often assumes a pale, yellowish or greyish tint. Sometimes it becomes finely scaly or very dry, even suggesting a mild degree of ichthyosis. It is on the exposed areas of this type of skin that precancerous senile keratosis develops. In another type of senile atrophy the skin appears thickened and wrinkled and is in folds. There may be seborrheic warts which seldom display a malignant tendency. Neck and temples are usually most affected, and tingling and itching are present.

Senile pruritus is common and this distressing accompaniment usually appears after sixty, being most common in the eighties. Inflammatory reactions around the numerous scratch marks are rare. Senile pruritus should not be diagnosed as such in all cases of itching of the aged. The old are not immune to Bright's disease, parasitic infections, diabetes, lymphadenoma, gout and leukemia. Senile pruritus is supposedly due to endocrine deficiency, yet no case benefitted by the administration of endocrine therapy has been reported.

In fractures one must never overlook the fact that discomfort in the aged may prove disastrous. There is no excuse for neglecting an attempt to restore a broken bone to anatomical normality in old persons. The mental equilibrium and the restoration to activity which the patient desires should be uppermost in our minds. It is much easier to reduce a fracture in the old than in the young. There is lack of muscle tone associated with reflex atony, no muscle spasm, and the fracture can be reduced without anesthesia, except in fractures of the pelvis and femur. It has never been definitely established whether, in the old, the fracture occurred before the fall and the fall was due to the broken bone, or the bone was broken by the fall. The

fracture may have been due to some pathological process of the bone. The exact influence of age on callus formation is hard to assess. Absorption exceeds deposition, and the bones of the old are brittle. The diminution of vigor of the endocrine glands do inhibit callus formation. Good muscle tone is always associated with good vascularity of bone. Good and rapid union may be obtained in a man of eighty, if he is active, but in a sedentary worker of fifty, with flabby muscles, such good and rapid results may be impossible. Age is the season of decalcification.

Many changes in the eyes commonly regarded as senile are really due to infection. Macular retinochoroiditis, which, according to de Schweinitz, was considered due to the onrush of the years, is really the result of foci of infection, in the prostate, bladder or teeth. But it is a disease of later life, as are many other afflictions, because functional impairment or serious organic changes are the result of the cumulative action of the toxic agents. Lesions of the eye viewed as senile may be the result of avitaminosis or nutritional deficiencies. The senile retina has less lustre and gives off fewer light reflexes than that of the young. Arteriosclerotic changes occur in the retinal vessels. Rones demonstrated that the eye is subject to changes in all its tissues with advancing years, while other parts of the body may remain unchanged. "The eye", says Rones, "demonstrates that there is no relationship between tissue age and chronological age". He has noticed senile changes in the eyes at forty and little evidence of any change at eighty. Vascular accidents resulting in blindness due to hypertension were reported in men in their prime. It has also been reported that definite pathological eye conditions, associated with advancing years, cause little or no disability, arcus senilis, for example. Cataract is supposedly due to parathyroid and calcium deficiency. Glaucoma tends to occur in old people. Displacement of the eyelids is due to absorption of intraorbital fat.

Senile deafness is one of the commonest of affections that supervene late in life. It is regarded as a physiological change, yet seldom is there defective hearing for ordinary speech. Advanced old age is quite often reached without symptomatic deafness. Real deafness in old age is due to atrophy of the auditory nerve and to degeneration of the myelin sheath. Tinnitus and vertigo are common in presenile deafness, due to arteriosclerosis, to the toxic effects of tobacco, or to changes in the middle ear. Loss of tolerance for tobacco is not infrequent in old age, especially in cigar smokers. The same holds true for tea and coffee. Decalcification of teeth and grossly infected sockets aggravate the condition. Otitis media and infection of the accessory sinuses are practically nonexistent in the old, whereas bronchitis is the bane of the aged.

The pancreas undergoes great changes in the old. The normal simple columnar lining of the interlobular ducts is changed, to the stratified type. There is great dilatation of the acini, and the decrease in the quantity of secretion resembles the changes found in vitamin A deficiency.

Elderly persons tolerate elective surgery surprisingly well. Many years of comfortable living have been added by justifiable operations. Major operations past sixty are no longer considered hazardous undertakings. One must keep in mind the record of previous diseases, and the decreased reserve found in advanced life which is reflected in the cardiovascular, respiratory and renal systems.

Decrease in libido and potentia in the aged is not as common as it is supposed to be. To many old men impotency is calamitous and spells the approach of the finale. In the process of aging the testes are the last to succumb. How much the gonads are concerned with potency has not been definitely ascertained. In my practice two men, each past seventy, underwent bilateral orchiectomies. The potency of each was unimpaired after receiving two milligrams of diethystilbestrol daily.

Degenerative diseases of the heart, kidneys and bloodvessels are common in old people. There is no known way of lessening the mortality from these diseases after they have developed.

The menopause heralds the aging of the endocrine organs and of the genital tract. There are seventeen million women in the United States who are past the age of forty-five. The psychosomatic manifestations are probably related to altered hormone balance. There is constantly the fear that with the advent of the menopause sex life will cease, but the fact is, sexual desire is preserved in many women for years after the cessation of menstruation. However, there is atrophy of all the pelvic organs; the labia become smaller, the vagina contracts, the vaginal fornices become smaller, the cervix shrinks, the uterus diminishes in size, and the fascia gets less heavy. Arthritis, with structural changes in the joints, is common during that period. There is probably a close physiological relationship between the anterior lobe of the hypophysis and the ovaries. The ovarian changes therefore are affected by the pituitary gland, and so is the shrinking of the breasts. Here, then, is a woman suffering from anxiety which results, by way of the hypothalamus, in frequent bombardments of a sensitive sympathetic system with disturbing nerve impulses. There is a deterioration of self-esteem. Even in women of marked intelligence the repercussions of ovarian insufficiency are often calamitous.

Urinary disturbances are quite frequently encountered in the postmenopausal period. There is the syndrome of dysuria, frequency and urgency with or without incontinence. When there are no organic disorders in the urinary tract these disturbances are traceable to estrogenic deficiency. The senile vaginitis encountered in these women is due to the same cause.

The Prolongation of Life

What must we do to prolong life and continue the waning energies?

There is no lack of unanimity in the disintegration of the human organism. To live is to age, and to age is to decay, and die. Man, as ably stated by Alexis Carrel, bounded by the laws of his organic constitution, will never vanquish death. But can we prolong the life of the individual and keep his mentality functioning? Can we stave off the tragedy of senescence? Can we avoid the infirmities of old age by preventing the disabling and killing diseases of advancing years? And can we in a measure retain or restore some of the vigor of the young in the old?

The placing of old men and women in homes for the aged results in the greatest stagnation to mental life

and is the supreme tragedy in the existence of each of those unfortunates. They are being penalized for having lived so long. Those inmates, often the fathers and mothers of well to do sons and daughters, become splintered human fragments of a once human structure.

We preach to our patients not to live in the past, to look ahead; but what have the inmates of these homes to look forward to? They live in the shadow of decadence, the leash of dependence over them, nothing to look forward to, just eat, sleep, be disciplined, and wait for death. For the todays are like the yesterdays and the tomorrows will not differ from the todays. Except for the senescent and the hopelessly invalidated all the homes for the aged should be closed, and the old kept in physical and mental activity.

Longevity.—The legacy of life is bequeathed by the parents. The offspring inherit natural immunities against acquiring infections and baneful allergic conditions. Animal eugenics are not applied to humans and the mating of the weak with the weak causes the issue of poor human material that is not conducive to a long life. But the living of a normal psychological life contributes greatly to the prolongation of life's duration. Worry, grief, anxiety, suspense and mental stress disturb the balance of the sympathetic nervous system and bring about functional disorders in essential organs which may eventually become pathological. Continued states of unhappiness, lack of adjustment, the very tendency to drift into anxiety, cloud the days and shorten them.

(To be continued)

DELIVERY OF THE AFTERCOMING HEAD

Description of a Simple Procedure

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No physician should attempt any obstetrical procedure unless in so doing, he is well equipped to safeguard human life.

The general practitioner is fairly safe in assuming the care of a pregnant patient whose infant is in a vertex presentation, for if there are indications of fetal distress, or if labor is slow, he has time to get expert assistance and have a specialist apply forceps or perform a cæsarean section or version. When, however, the breech is presenting, and especially if this condition has not been diagnosed, there is great danger to the child unless the physician can deliver the head quickly after the body is out. It is important, therefore, for everyone who undertakes obstetrical work to know how to deliver the aftercoming head.

Delay in delivery of the aftercoming head is due to extension. If the head flexes so that the shorter suboccipitobregmatic diameter presents, delivery proceeds without difficulty. Numerous maneuvers for this purpose have been attempted, but none has been wholly effective. Results may be accomplished by use of the Piper forceps, but forceps are not always at hand and sterilized. When no forceps are available, flexion is just as easily obtained by the use of a simple maneuver which I described in 1932 (1) and which is still effective. Every student should learn it.

With the body of the child astride the operator's arm, the suboccipital region lies just below the solid, fixed pubic joint of the mother (Fig. 1). When the operator elevates the fetal shoulders by raising the supporting hand, the pressure of the pubes on the suboccipital region flexes the head (Fig. 2) so that the shorter suboccipitobregmatic diameter presents, rotation takes place and delivery easily follows as the body is brought up over the mother's abdomen.

Fig. 1.—Showing shoulders low and head extended.

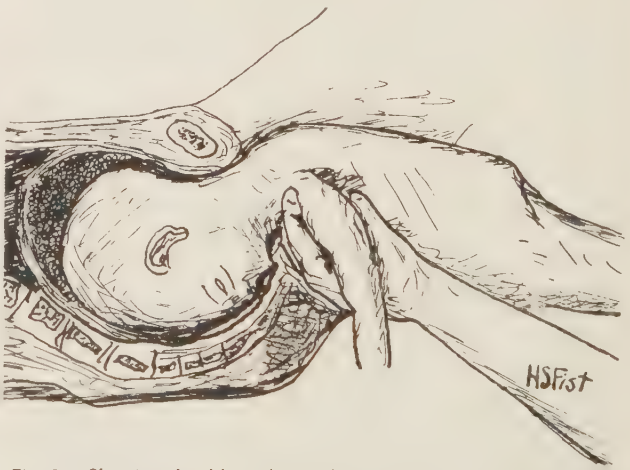

Fig. 2.—Showing shoulders elevated and head flexed against pubes.

The lives of breech babies may thus be saved when special instruments are not available and expert assistance not at hand. It is therefore more essential that the intern know this simple life-saving procedure than to be able to apply forceps, perform version or open the abdomen.

Reference

1. FIST, H. S.: Breech—aftercoming head, MEDICAL JOURNAL & RECORD, (Oct. 5) 1932.

1930 WILSHIRE BOULEVARD

THE GREEKS HAD A WORD FOR IT

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"It is primarily important that the sleep mechanism must supply resistance at the same moment that it is yielding to pressure. That's renitence!", says Mr. Fanning; in which it is assumed that the mattress innerspring is referred to. Well and good, as far as it goes, but "renitence" does not go far enough, not by a long way. And until this further distance is measured and related to the mechanics of helical springs, and to their action and reaction as component parts of a mattress innerspring unit, the bedding industry may continue to mark time as to technical progress.

Bedding and Technology

Indeed, "technology" is here and now submitted as one other new word, with its far-reaching implications that may well be a keystone of bedding's new arch of post-war accomplishments. And still another word is "concatenate", which may also find or renew its place in bedding terminology: but of these two words more at a later date.

The trade publications have handled this subject like the proverbial hot potato, hesitant lest the producer or distributor, or both, might be displeased of implied criticism of his product. In fact, the hospital publications have been almost equally reluctant to appraise the construction, technically, of the innerspring entering into the mattresses serviceing the hospitals of this country.

But if "renitence" may not be fully adequate, what to do? If you were to ask some bedding manufacturer what laws relate to the composition and construction of the innersprings entering into the mattresses he makes and sells—or did, before Pearl Harbor—he may answer, "the bedding laws" of the State where his goods are made and sold. Well enough, but this is not the answer as technology may interpret the question; and, sooner or later, science must have its day if bedding is to keep its place in industrial progress not only, but as well to advance into its rightful heritage in the vanguard of progress. We can all do with still better sleep, and the public is ready and willing to pay for still better mattresses, provided it can be convinced that they are new and still better than the pre-war sleep equipment.

Innerspring Deflection

Two fundamental laws, therefore, must sooner or later be advanced and understood. Let us consider them in order.

Newton's law.—An age-old law of motion which starts in being applicable where renitence leaves off; and its fuller understanding and adoption may well mark a new order in bedding. It is a law which harkens back to our days of high school physics, overlooked or perhaps forgotten in the stress of business over the years. This is Newton's third law of motion: "For every action there is an equal and contrary reaction, or the mutual actions of any two bodies are always equal and oppositely directed."

When this basic principle of motion is related to innersprings of whatever type or construction, the claims made of certain exclusive or mystical properties of helical springs will lose much or all of their intended significance. In fact, it is possible in any and all compression spring design to make a spring with a definitely increasing scale per inch, or gradient, by using a variable pitch of coils or a variable diameter spring.

But what of the claims of some distinctive or mystical innerspring construction, by means of which the load deflection is automatically regulated or controlled by some power inherent in the spring itself, by virtue of its allegedly unique construction?

It is fundamental in helical spring design that if even spacing or pitch is used, a constant rate develops; and the converse is true. And it is a likewise basic precept that a compression spring cannot be designed with a decreasing scale per inch, or gradient—manufacturing claims to the contrary notwithstanding.

Hookes' law.—The second fundamental law upon which all spring design is founded, is Hookes' law, which states that "Within the proportional limits, otherwise known as the elastic limit, deflection is directly proportional to the load."

This law has the same generic application to mattress innerspring construction as Newton's law, and for technical progress should be as well understood. Only thus can a correct appraisal of the claims of unique and distinctive innerspring compositions be made.

Let us, therefore, scan a little closer the subject of conical compression springs, which are the body and substance of innerspring mattresses. With especial reference to the familiar "hourglass" shapes, these may be calculated as two conical springs, each taking one-half of the total deflection under a given load.

One of the best-remembered thoughts of the late Mark Twain related to the use of words, rather, to the right use of words. He said: "The difference between an almost right word and a right word, is the difference between a lightning bug and lightning."

Recently, a new word[1] has projected itself into the field of bedding: its general adoption may take root in fallow ground in this field, and may grow into a useful factor in bedding progress, or, willy nilly, it may not. Let us look at the record.

In these days of post-war developments, keen competition in every department of industry is impending and inevitable. In the bids for consumer acceptance, that which is submitted as new will be projected and promoted as such; and every factor, even a new word, will rate a certain percentage in the post-war approach to interest appeal and the adoption of commodities by the ultimate consumer.

One of the leaders in the bedding field, Mr. Fanning, has recently advanced "renitence" as the newly-discovered right word, which it is proposed will serve helpfully to till the ground for post-war planting and resulting newer and better crops of the public's dollars for sleep value received. But will it? Again, let us look at the record.

[1]Fanning, J. P.: "Renitence" spells success for inner spring mattresses. *Retailing Home Furnishings.* April 9, 1945.

When it comes to the ultrarefinement of construction, however, it is important to understand that some conical springs are made with the pitch of the coils so graduated as to stress all coils alike, and all coils close under the same load. Such a spring follows the formulas for a spring of a uniform mean diameter equal to the average mean diameter of the conical spring.

What is intended is to indicate that a substantial majority of mattress innerspring units of *uniform* load deflection at present subscribe to precisely the same formula—uniform deflection of the unit, which *does not compensate for disproportionate regional deflections of the recumbent sleeper's body*. However, so much for technology for the moment, as this relates to the extant state of bedding art.

Proposed Revision

This, then, is a prelude to a further consideration of post-war technical progress. It is assumed that every manufacturer and distributor of bedding is familiar with the commercial standard of mattresses for hospitals[2], as arrived at a decade ago.

At present before the American Hospital Association and the National Bureau of Standards is a proposed revision of this uniform load-deflection standard. This newer concept for maximum sleeper comfort is stated specifically in the proposed revision to CS54-35, by the addition of a new section 7a and following.

If this revision is adopted, it would make available to any and every mattress spring maker and mattress manufacturer in this country, without let or hindrance, the results of a physician's research work in this industrial field toward an improved quality of sleep, which is his principal concern and interest, whoever makes the money. The results of this research at this moment is a mattress innerspring construction which takes cognizance of the two fundamental laws above quoted, and is intended to alternate or replace the century-old types of uniform-deflection mattress compositions.

Whether bedding, for hospitals or otherwise, is to continue to mark time by its adherence to the older order—uniform load deflection mattresses for disproportional regional loads imposed by the recumbent sleeper's body—or will subscribe to a forward advance for the good of all concerned, inclusive of the consumer public, these coming months will decide.

"Renitence" or——

The Greeks had a word for it. It was not that unhappy little word, renitence (which is derived from "strive" plus "back"), which word pertains vastly more to the resistance of the bedding industry itself to progress, to anything new or different, than it does to mattress spring deflections.

Not quite so far along in the back of the dictionary is another word, constructive, buoyant, a harbinger of a new day for the bedding industry. It is derived from "again" and "be born", and is defined as new birth or life—perhaps post-war reconversion to a new bedding age. Who knows?

The Greeks may well have sanctioned this significant word for the new order, the new day, for tomorrow night's better sleep. Devotees like myself, of still better recuperation and rest on modernized sleep equipment, I give you "renascence"; which I am sure would have had Mark Twain's approval as to a right word.

[2]Department of Commerce, National Bureau of Standards, Division of Trade Standards, Mattresses for Hospitals, Commercial Standards CS 54-1935, Superintendent of Documents, Washington 25, D.C.

Acne Miliare: Its Incidence and Treatment*

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The purpose of this paper is to call attention to a satisfactory treatment of acne miliare, a common disease of the skin of the face. Only an occasional reference is made to this condition, as revealed by a survey of the literature. For cosmetic reasons alone, it deserves greater importance.

Acne miliare is the eruption characterized by pinpoint to pinhead white cysts, sometimes secondarily infected so that there are associated pustules. Comedones and papules are not present.

It occurs almost exclusively in women in the twenty to fifty age group, and has a seasonal incidence. Exposure to the sun rays is an important etiological factor, since acne miliare is encountered mostly in the late summer and following the Florida season. Although the majority of our patients had no previous skin ailment, several gave a history of acne vulgaris during adolescence. These cases cleared up completely after a course of x ray treatments and there were no recurrences. In addition to the milia, many of the patients complained of a dry skin. Some of them volunteered the information that their skin was drier than it had been in the past and their scalp was definitely oilier. Apparently, in these cases, the sebaceous glands of the face had decreased their activity concurrently with an increase in the secretion of the glands in the scalp.

We treated a series of 165 cases with puncture of each individual lesion with a sharply pointed bistoury, followed by expression of the contents with a comedone extractor. No medication is necessary. Occasionally it is advisable to cauterize the inner lining of some of the larger cysts with pure phenol. X ray therapy is definitely contraindicated. Not only is it of no value, but it actually aggravates the condition, since it further decreases the activity of the sebaceous glands in a skin already drier than normal.

The sites of predilection are the cheeks and chin, in that order, with only occasional involvement of the forehead. The eyelids are seldom affected.

The course of treatment with puncture and expression varies in length with the severity of the case. We have found that a treatment once a week, or at most, twice, is sufficient to clear up all but the most extensive conditions within a few weeks. The patients do not mind the slight discomfort attendant upon this procedure, particularly since the beneficial effects can be observed almost immediately. Recurrences can be prevented if the patient is cautioned against excessive exposure to direct sunlight.

Summary

1. A series of 165 cases of acne miliare has been observed.

2. All occurred after excessive exposure to sunlight.

3. The age group was twenty to fifty and not in the adolescent years as in acne vulgaris.

4. Treatment consists of puncture of each lesion and expression of contents. X ray therapy is contraindicated.

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Symposium on Tuberculosis

RHEUMATIC ENDOCARDITIS AND TUBERCULOSIS*

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The present conception of the cause of rheumatic fever is still dominated by the view that streptococci are related to its etiology, and this despite the fact that they never have been found in the tissue of the foci or in the fluid of the joint or in the fluid of the spinal canal in chorea. Only a few authors have found streptococci in the blood stream in a small number of cases.

Gibson, the authority for the pathology of rheumatism, at the International Congress for Rheumatism in Oxford, 1938, summarized the results of his investigations as follows: "The morbid anatomical appearances, especially in the heart, approximate those of tuberculosis rather than those of streptococcus infection. One finds sometimes streptococci on the surface of the valves, but never in the connective tissue or in the capillaries."

It can be safely assumed that ninety-nine percent of all serous effusions are tuberculous in nature. Morphologically, there is not much difference between the effusion in pleurisy and the joint fluid in rheumatism. It is also a well known fact that the streptococcus never produces a pure serous effusion. Also of interest is the fact that in roughly thirty percent of rheumatic fever patients there is a pleural effusion. Therefore, it is apparent that the streptococcus is of secondary importance.

There was a strong opposition when I read my paper on the cultivation of tubercle bacilli from the bloodstream (1934), but the Viennese pathologists felt obliged to check my results. The Pathological Institute of the University organized a special laboratory, whose results verified my findings.

Popper and his coworker, Coronini, cultivated tubercle bacilli from the blood in eighty-six percent of autopsied tuberculous bodies.

The next step was to check my findings of tubercle bacilli in rheumatic fever patients by culturing from the heart blood and especially heart muscle in cases where death had occurred as a result of rheumatic endocarditis. Coronini and Popper published their report on 134 cases of rheumatic endocarditis and heart failure in *Virchows Archiv*, vol. 296, 1936. They found positive cultures in fifty-eight percent of the acute, forty-seven percent of the subacute, and thirty-one percent of the chronic cases. In not more than five cases was an active tuberculosis discovered at autopsy. These results alone, controlled by autopsy, should eradicate any doubt about the presence of virulent tubercle bacilli in the blood and heart muscle of rheumatic endocarditis cases.

Professor Coronini, in 1940, published an article entitled, "Ten years of cultivation of tubercle bacilli", a report of the Pathological Institute of the University. The total number of investigations from 1929 to 1939 was 40,896; 18,669 of these were blood cultures. Professor Coronini summarized the results of this enormous amount of material, collected in ten years, with the following words: "There can be no doubt that tubercle bacilli are to be cultivated directly from the blood of tuberculous cases, but especially from rheumatic cases."

The pathologists have confirmed in this way my results gained from the blood and fluid of the joints of living patients.

With Professor Reitter, director of the Hospital of the City of Vienna, I examined 412 cases of rheumatic fever from 1929 to 1936. These cases are the bulk of my material, but I cooperated with all the clinics of Vienna and Professor Berger, of Graz. We also obtained blood specimens from Prague, Germany, France, England, Belgium, Italy, Hungary and the United States. However, my report is based on the cases of Reitter and Berger.

In sixty-nine percent of the 412 cases of rheumatic fever I was able to cultivate virulent tubercle bacilli from the citrated blood. The best results were obtained when the blood was taken the first three days before the use of salicylates; following this the blood was taken as often as possible during and after the stay in the hospital. The results were more positive the oftener the patient was examined. Quite a few patients were examined only once, many four to fourteen times; one, twenty-six times. Few cases were positive only once, many four to six times. The above-mentioned case was positive fourteen times in twenty-six examinations during six years' observation.

Every appearance of the tubercle bacilli in the bloodstream ushered in a relapse, usually lasting only a short time, but sometimes with severe symptoms. Reitter and Berger observed relapses after a furuncle, a cold, even a sunbath, and especially during menstruation. Relapses in general were far more frequent in women. The permeability of the blood vessels surely plays an important rôle.

The tubercle bacilli appeared during delivery in the cases of chronic endocarditis. I found tubercle bacilli in the blood of the rheumatic mother and the umbilical vein of the baby in four cases. One child died of endocarditis after three days; three survived, showing no symptoms for the first year, but after five years the syndrome called Still's disease had developed. There were fever, joint pains and swellings of the lymph glands, spleen and liver. In March, 1938, these patients were still alive, and apparently recovering. It is of the greatest interest to follow up the fate of such babies for at least two decades.

Reitter also sent the blood of 131 cases of typical chronic polyarthritis, 24 men and 107 women. Fifty-

*A lecture delivered, by invitation, before the California Heart Association, Los Angeles, May 6, 1944.

five percent of these cases were positive, many of them several times, at long intervals. Berger found one case that was positive five times in two years.

Cardiac Conditions

Aschoff's nodules, the morphological equivalent for allergy, are especially numerous in the heart. They are resorbed and slowly replaced by scar tissue, producing a myocarditis and sometimes, particularly in childhood, a pancarditis. These scars in the myocardium are often found in the autopsy of old persons who have died of heart failure. Decompensation was the cause of death in these patients. The culture gives reliable results only as long as fresh infiltrates are present, and in such cases the culture from the heart muscle gives better results than from the blood or tonsils.

The generally accepted conception, that the valves are attacked from the surface, neglects the findings of the pathologists who worked for years to solve this problem. Marchand, Koniger, Coombs and Swift described an interstitial valvulitis, corresponding to the anatomical appearances of allergy in the valves. Holstoi (Helsingfors) described twenty-eight cases of rheumatic endocarditis and heart failure, in which the surface of the valves was absolutely intact, but around the nutrient arteries of the valves he found progressive foci of infection.

Adami and McCrea (Philadelphia), in their excellent work on pathology, wrote in 1912, as follows: "The infection may reach the valves by means of bacteria, carried into the nutrient arteries of the valves, but their vessels, being selectively independent, have but poor anastomoses. Emboli, or minute thromboses, are formed with resulting poor nutrition and readiness to breakdown. With the destruction of the lining cells, there is now developed an area at which thrombosis is favored, and thus what we call 'vegetations' are developed".

These famous pathologists, in 1912, had already recognized what is really going on in the rheumatic heart. About twenty years later, Karsner and Bayliss, just as Fraser did, histologically proved that the coronaries were affected in every case of rheumatic carditis, from acute inflammation to engorged fibrosis of the intima and media.

Now, after the breakdown of the endocardium, other bacteria could establish themselves; this really happens in endocarditis lenta. Schöttmüller already suspected that the lenta endocarditis grows on the soil of a rheumatic endocarditis. Coronini and Popper isolated virulent strains of tubercle bacilli in four out of twenty-seven cases of endocarditis lenta simultaneously with streptococci viridans. I found in seven out of two hundred cases tubercle bacilli and streptococci viridans simultaneously. There is no longer any possible doubt that rheumatic endocarditis begins in the interior of the valves of the heart, that the valves are affected in the same way as other mesenchyma tissue, that specific tissue is replaced by unspecific scar tissue.

In chorea, whose rheumatic nature is generally accepted, the spinal fluid appears normal, but simply staining the sediment with the Ziehl-Neelsen dye sometimes demonstrates the acidfast bacilli; the cultures of course give much better results. The results of blood and spinal fluid culture are one hundred percent positive in cases of choreal endocarditis. Pathologists should stain microsections of valves, meninges, and tela choroidea with the Ziehl-Neelsen dye.

Rheumatism of the Eye

Research and the experience of clinicians have taught us that eye diseases are of frequent occurrence in rheumatic fever. Therefore, our manuals of ophthalmology speak today of rheumatic iritis, iridocyclitis, and chorioditis. But oculists like Hippel, of Göttingen, always suspected tuberculosis in the background.

Professor Meller, director of the Eye Clinic of the University of Vienna, was deeply interested. We worked together from 1923 to 1937 and up to the end of 1934 I cultured 2313 cases with 262 positive results. Most of them were cases of iritis, iridocyclitis and choroiditis. Meller's special interest was devoted to sympathetic ophthalmia. I received not only the blood but also the eye, minus a cap which Meller reserved for histological examination. One case may be reported here:

The eye was sent by Meller on January 23, 1935. On February 23rd I reported macroscopical pure culture of tubercle bacilli and urged a report of the histological result. After three series of microscopic sections, Meller suddenly discovered a focus with many tubercle bacilli. He was quite enthusiastic at having found the "missing link". The tubercle bacilli in *loco morbi* were, then, the undeniable histological proof. Meller now has a series of cases in which the tubercle bacilli were found in the tissue by culture and histological methods. I received forty-five eyes. Up to 1938, twenty-five of them were positive; two of them were cultured by Costil at the Institut Pasteur, Paris. Pillat found by ophthalmoscopy foci of choroiditis in sixty-one percent of the cases of acute rheumatic fever in which I had found a tubercle bacillemia.

Therapy

Treatment must still be based on the salicylates, but we have seen no advantage in the use of large doses. Reitter always recommended the puncture and aspiration of the fluid of the joint.

It is now interesting that clinicians with such long experience as Reitter, Berger and W. Neumann have become convinced that tuberculin dilutions of 1:100 million are the best therapy, especially in endocarditis.

I always used emulsions of killed tubercle bacilli for scarification as in smallpox vaccination, and I sometimes observed magical results. I especially remember a case of subacute endocarditis, aortic insufficiency, and a painful iridocyclitis with severe ciliary injection, in which the fever, headaches, and ciliary injection disappeared twenty-four hours after one scarification, which produced a strong reaction at the site of the vaccination. For two years the patient suffered no relapse. I have seen similar cases of deep scleritis, iridocyclitis, and detachment of the retina surprisingly improved after a few scarifications. I have always preferred eye cases as test objects because of the possibility of an objective control.

The cutaneous application has the advantage that no overdosage occurs, which could provoke a relapse. The stronger the skin reacts, the better the results, as there is no general reaction or fever, and the epidermis works like a grinding mill. The antigen is neutralized on the site of the scarification. Therefore, I suggest that a fair trial be given to this harmless method.

In an interesting paper on "Penicillin in the treatment of rheumatic fever" read by Commander T. Russell Twist at this meeting, he stated that penicillin alone or combined with the salicylates was of no effect, the rheumatic process was not in the least influenced, but in two of the rheumatic fever cases there was a chronic otitis media (streptococci and staphylococci) which completely healed in three days after the intramuscular injections of large doses of the drug. A further indication that streptococci are not the cause of rheumatic fever.

All the authors agree that the basic disease of rheumatic fever is to be seen in a hypersensitivity, but they disagree over the nature of the antigen. Many authors are still inclined to believe in the etiological rôle of streptococci, which I suppose only mobilize the tubercle bacilli. I believe that rheumatic fever is one of the masks of tuberculosis, and that therefore a specific desensitization is possible by the antigens of tubercle bacillus, and our other practical experience speaks for that possibility.

Summary

1. Rheumatism is a disease of the whole mesenchyma, and especially of the heart and blood vessels. It always leads to an overproduction of scar tissue in every organ system.

2. Tubercle bacilli have been found in *loco morbi* and in the blood stream of patients with rheumatic fever, endocarditis and chorea in sixty-seven percent of 889 cases by culture, animal experiment, re-culture, and micro-sections. (Loewenstein, Reitter, Berger, Coronini, Graziosi (fifty percent), Domingo, Mantussis and other authors).

3. The tubercle bacilli were also found in the umbilical vein of four babies born of rheumatic mothers. After five years, the babies showed symptoms of Still's disease.

4. Tubercle bacilli have been cultivated postmortem from the blood, heart, tonsils or spleen in fifty-eight percent of patients with rheumatic endocarditis. They were identified by all possible methods (Coronini, Popper). The coronaries are affected as a rule, particularly in the intima and media.

5. Tuberculosis cannot be ruled out by macroscopical inspection, therefore culture or at least a direct smear from the liver should be made.

6. "The anatomical appearances, especially of the heart, approximate those of tuberculosis rather than those of streptococci" (Gibson).

7. Streptococci rarely are found in the blood stream, but when found, simultaneously with tubercle bacilli as a superimposed infection, they lead to endocarditis lenta. They never have been found in the fluid of the joints, the connective tissue of the valves, of the capillaries or in the spinal fluid of patients with chorea. Streptococci cannot produce a serous effusion. Sulfonamides and penicillin have no effect.

8. Aschoff's nodules are the morphological equivalent of allergy (Roessle, Klinge, Gibson). Histologically, the younger the lesions are, the higher the percentage of positive cultures.

9. Aschoff's nodules are found in the heart of tuberculous bodies without rheumatism in the case history (Masugi).

10. The valves are infected primarily by the way of the nutrient vessels (Adami and McCrae). After the breakdown of the lining cells of the endocardium, a secondary infection may be established.

11. The spinal fluid of patients with chorea appears normal, but tubercle bacilli may be demonstrated in the sediment by simply staining (Loewenstein).

12. The glands tributary to the affected joints show fresh tubercles and tubercle bacilli (Reitter, Schajowitz, Erdheim).

13. The veins coming from the affected joints contain large numbers of tubercle bacilli, especially arranged in thrombi, filling small precapillaries.

14. Tubercle bacilli are found not only in the bloodstream, but also in the tissue of eyes with iritis, iridocyclitis, choroiditis, sympathetic ophthalmia (Meller), and in the tonsils, which may often be the primary focus in rheumatic diseases.

15. Foci similar to those in miliary tuberclosis can be found in sixty-one percent of cases of rheumatic fever by ophthalmoscopy (Pillat).

16. The sedimentation rate is close to that of miliary tuberculosis.

17. Rheumatic fever cases before the salicylate treatment developed frequently into miliary tuberculosis (Charcot, Laveran, Kussmaul).

18. Antibodies against tubercle bacilli have been found in over eighty percent of patients with rheumatic fever (Brandt, Kutschera, v. Manteuffel).

19. Erythema nodosum, the tuberculous nature of which is beyond doubt, occurs frequently in rheumatic diseases.

20. The curve of tuberculin sensitivity shows a characteristic change from anergy in the first days to hypersensitivity in convalescence, exactly as in erythema nodosum.

21. The treatment with homeopathic tuberculin-dilutions 1:100 millions (Berger, Reitter, W. Neumann), or scarifications with a strong emulsion of killed tubercle bacilli, should be applied as soon as possible along with salicylates. Therefore, the therapy of rheumatic diseases should be specific tubercle bacilli antigen.

22. These facts suggest that the occurrence and recurrence of rheumatic fever is dependent upon an endogenic or exogenic reinfection with tubercle bacilli. Superimposed infections especially streptococci, may mobilize sleeping foci of tubercle bacilli.

23. The anatomical appearances and the clinical symptoms may be described as of an allergic nature.

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THE RESPONSIBILITY OF THE PRIVATE PHYSICIAN IN TUBERCULOSIS CONTROL

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The importance of the general practitioner in the control of tuberculosis among private patients is emphasized by the findings of the U.S. Public Health Service in chest x ray surveys conducted among more than a million industrial workers and by the discovery of a relatively high incidence of the disease among rejectees of the armed forces.

Eight mobile x ray units, operated by the Tuberculosis Control Division of the Public Health Service in various parts of the country, found that three in every two hundred persons examined had x ray evidence of reinfection tuberculosis—active or inactive. Sixty-five percent of the lesions were in the minimal stage, thirty percent in a moderately advanced stage and five percent of the lesions in the far-advanced stage. Pre-induction examinations by Selective Service alone revealed 150,000 cases with x ray evidence of tuberculosis.

That the family physician will be called upon to treat a great majority of these persons is borne out by the experience of the U.S. Public Health Service and of the National Tuberculosis Association and its affiliates. In industrial surveys an overwhelming number of workers who could afford private care designated their family physicians—general practitioners—as the doctors to whom the report of the x ray findings should be made. When these reports are sent out they are accompanied by a request that the physician confirm or disprove the x ray findings by further clinical studies—such as history and physical examination, laboratory tests and repeated x ray examinations. He is also asked to examine contacts and to report new cases of tuberculosis to the local health department.

The average patient has a great deal of confidence in his private physician and expects him to treat tuberculosis just as he would accept other family medical emergencies. Psychological factors make this desirable and practical considerations make it feasible, especially if the physician possesses sufficiently broad understanding of tuberculosis and modern therapeutic methods. Sanatorium care is no longer the only method of tuberculosis control. Many minimal lesions and a limited number of inactive advanced lesions are amenable to out-patient supervision under strict medical care. This supervision and care can often be rendered by the alert general practitioner who possesses modern knowledge of the diagnosis and treatment of tuberculosis.

The demand for this type of care is expected to increase as rapidly as mass radiography units penetrate all sections of the country, uncovering a large number of unsuspected cases of pulmonary tuberculosis that will need medical supervision—before and after sanatorium care.

The personal experience of actually having a chest x ray will stimulate thousands of individuals to seek

medical care, from general practitioners, chest specialists and radiologists, either for tuberculosis or for other chest conditions found on survey examinations.

Through their vast nation-wide educational program, their case-finding and rehabilitation work, which are supported by the sale of Christmas Seals, the National Tuberculosis Association and its affiliated groups will continue to awaken communities to the dangers of the disease. As a result, communities will provide the armamentarium needed for the proper care of the tuberculous patient—hospital beds, clinics, laboratories, rehabilitation service, extensive chest surveys and generous social assistance for the dependents of the tuberculous patient.

The by-product of cooperative plans of public agencies and voluntary associations will provide new aids for the physician in private practice—x ray, laboratory and consultation services, as well as opportunities for postgraduate training. With these aids he will be better equipped to meet the increasing demands of the tuberculous patient for his services.

As x ray surveys become an annual routine in many communities, more and more minimal lesions will be found, and conversely, fewer advanced lesions, which now, in most cases, require immediate sanatorium care. The reversal of the old ratio will shorten and simplify therapy for the larger proportion of tuberculous patients; will assure quicker and more complete treatment, and greatly increase the chance of vocational rehabilitation.

A better distribution and greater expansion of clinic, x ray field services and laboratory facilities will bring modern diagnostic aids within the reach of every general practitioner in urban or rural areas. New, well-equipped sanatoria, more accessible to population centers, and accredited for residency training, will provide convenient consultation service. Such institutions can be developed to provide postgraduate training of great value to the general practitioner. Research laboratories and demonstrations devoted to the evaluation of old and new therapeutic methods and clinical concepts about tuberculosis have already been established and will be increased in number. From these efforts it is hoped additional aids will be forthcoming for the physician, not only to control but to eradicate the White Plague within a measurable time.

THE X RAY A MIGHTY WEAPON IN TUBERCULOSIS CONTROL

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The most powerful, practical and speedy weapon for combatting tuberculosis that has been made available to the human race is the low cost x ray photograph using moving picture films or paper negatives to record the condition of the lungs. This makes possible the examination of the entire population of a community and discovery of tuberculosis in its early, most easily curable stages.

This year the Thirty-ninth Christmas Seal Sale marks the fiftieth anniversary of the magnificent gift of the x ray that science gave to humanity. On Nov. 8, 1895, Wilhelm Konrad Roentgen announced that he had discovered a mysterious form of radiation which had the property of penetrating the human body so that photographic records could be made of internal conditions.

It was soon discovered these rays would reveal tuberculosis germs were destroying the lungs long before the affected individual had any symptoms to warn him of the presence of the disease. But the making of such radiographs was expensive. It required the unremitting work of scientists, inventors and engineers for two score years to improve, standardize, simplify and reduce the cost of x ray examinations by recording the fluoroscope image on moving picture reels or paper negatives. Today the entire routine of making an x ray picture of the chest can be completed in twenty-five seconds.

Every nine minutes someone in the United States dies of tuberculosis. For every person who dies of the disease two new cases are discovered each year. Every new case comes from someone who has tuberculosis.

If every person with tuberculosis in the United States could be discovered and all of these persons would adopt complete and effective safeguards against infecting others, new cases of tuberculosis would vanish quickly and the succeeding generation would be entirely free of tuberculosis as a cause of illness or death.

The average person is amazed to learn how many persons have the disease, unknown even to themselves, and are spreading it to others. An illustration may make this dangerous situation clear.

In the average two-hour moving picture show, about one hundred thousand separate pictures are projected in rapid succession on the screen. If each section of the reel, a little over one inch square in area, used in producing each of these individual pictures, were used in making a photographic record of the chest of an individual, and the chests of one hundred thousand moviegoers were examined, fifteen hundred of them would be discovered to have tuberculosis. It would require a large theatre to accommodate this number of victims in a single audience.

The United States Public Health Service, operating eight mobile x ray units installed in special buses, examined, in two years, more than one million industrial workers and found more than fifteen thousand persons with infectious or noninfectious tuberculosis.

The mobile units cost approximately $18,000 each. It is estimated that there are about five hundred thousand cases of active tuberculosis in this country, two hundred thousand of which are unknown. If slightly more than two thousand mobile units were used, every person in the United States could be examined within a year and all the unknown cases of tuberculosis would be discovered. The cost of the mobile units would be $35,000,000 and the operating expenses about $25,000,000—a total less than the cost of a battleship.

Every community in the United States can, within limits, fix its own death rate from tuberculosis by providing facilities for discovering the unsuspecting victims and providing medical and social aid. Equipment

for an x ray clinic can be installed for from $1,250 to $5,000.

In every community, on a nation-wide average, each one thousand of adult population will contain fifteen persons who have tuberculosis because the community failed to protect them in the past. Tuberculosis strikes on both sides of the railroad tracks. The energetic young person is its favorite target. No age is immune.

The National Tuberculosis Association and its twenty-five hundred affiliates are constantly calling to the attention of communities the importance of taking the necessary measures to prevent the spread of tuberculosis. These voluntary agencies deserve our unstinting support. One way we can give that support to them is by the generous purchase of Christmas Seals, which finance their program.

TUBERCULOSIS MUST BE FACED AS POST-WAR PROBLEM

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Those of us who have seen what tuberculosis can do in war and after war are more frightened about it and more likely to take it seriously than those who have had to stay at home. That is the only reason why a layman like myself, who knows nothing about medicine but who has seen much suffering, can dare to write about disease. I have been a war correspondent for ten years now—from Abyssinia to Spain to the World War—and tuberculosis is as much a part of war as shells and bombs.

Sometimes you sort of take it for granted, as in Ethiopia or India where misery seems so natural that you have to force yourself to remember that much of it is man-made and preventable. Sometimes you see why it happens, as I did in Rome, for instance. I lived there from 1939 to 1942 and I knew, vaguely, that the Italian capital was notorious for having a high tuberculosis rate. But it was not startling and the average person never thought about it.

Then came the war, and we conquered Rome on June 4, 1944. Allied Military Government, our civil affairs branch of the Allied Armies, went in the same day with its health authorities who immediately began a survey. A few weeks later the chief health officer told me that, incredible though it sounded, they were finding that one person is every five had tuberculosis.

When we invaded Southern France in August and fought all over the streets of Marseilles, I remember being told over the luncheon table that "so many people have tuberculosis now!" Later, a French authority estimated that in 1943 tuberculosis had increased forty-eight percent in Paris over 1939.

In the past, tuberculosis killed more people than wars did. In the places I have mentioned and been in during recent years, the high tuberculosis death rate was due to war conditions, or poverty which the wars aggravated. At home in the United States we have not got that excuse—at least not yet, but tuberculosis develops slowly and it is too soon to tell what may happen after the war. That is when the real test comes, a test we are beginning to face.

And it is in its way a test of democracy. In Italy, under fascism, I saw the State interesting itself to some extent in the prevention and relief of tuberculosis. Fascism, along with its multiple evils, found it useful to do some good things for the masses. In every field of human progress there is a challenge to democracy to show that the will of the people can provide as well as the fiat of a dictator.

A victory that left a legacy of disease would be a hollow one. World War I, it will be recalled, was accompanied and followed by an influenza epidemic which took many more lives than all those killed in the conflict. It is as if Nature sets out to show us that if we must have destruction she can go us one better. Yet the conquest of that aspect of Nature is at the basis of civilization and progress.

What we see in the war-devastated countries is an abnormal condition where malnutrition, poor housing or no houses at all, lack of sanitation, lack of clothing and the like weaken the individual's resistance to disease germs. That has been unavoidable during the war, and doubtless will continue to be for another year or so, but Allied Military Government, or its equivalent, is fighting disease in every country of Europe.

In the United States there is no convenient A.M.G., but neither is there destruction, famine, homelessness. The excuse is infinitely less. In America, education and popular contributions could be enough to reduce the 57,000 annual deaths from tuberculosis to a minimum. We Americans are apt to take our blessings for granted, although the soldiers who have been fighting far from home will not do so when they return.

They have suffered their share of tuberculosis, too, which is an extra pity, because they went into the Army after chest x ray examinations which showed they were free of tuberculosis. But war has its casualties beyond those tragic lists of killed, wounded and missing which you see every day. You get no Purple Hearts for dysentery, jaundice, malaria or tuberculosis, but the victim is as much a casualty of war as the others. So many veterans of the first world war broke down with tuberculosis that it cost about one billion dollars to care for them. This is already a much longer war, with many more men involved.

Now that V-J day is past one wonders how many of those who escaped both bullet and germ should now be going home to face that same old enemy of mankind, the "mycobacterium tuberculosis?" It is to reduce that number, and those victims who are the relatives or sweethearts of the returning soldiers, that the campaign to sell Christmas Seals this year takes on added meaning. The battles that are fought with fire and steel are won or lost, and that is the end of them, but the other battles, the ones that men and women fight against disease never end and the arms can never be laid down.

It is to provide the arms that all of us have been asked to buy Christmas Seals.

Editorials

Boric Acid Should Go

It is not easy to account for the time-honored popularity of boric acid as a household remedy. Let a child exhibit a sore eye and immediately, the mother gets the bottle of boric acid solution or makes it up herself with some boiled water from the kitchen. If the child has a burn of whatever degree, boric acid ointment is the first recourse. There seems to be little limit to the external uses of this agent in spite of its well-known absorption from an abraded surface. But medical literature is full of titles such as "boric acid poisoning" or "the dangers of boric acid" or "six deaths due to boric acid".

In the *J.A.M.A.*, September 29, 1945, E. H. Watson, M.D., of the University of Michigan Medical School and Hospital, makes a clean cut and perfect case for the discontinuance of boric acid in medicine. He recalls the case of three infants who were accidentally poisoned in a New York hospital. The intention was to give isotonic salt solution but the boric was substituted inadvertently. A curious observation is that in such poisoning the skin takes on the color of boiled lobster! Watson reports in detail the death of a boy, aged four and one-half, who received between sixty and one hundred grams of ten percent boric ointment for "weeping eczema" involving the entire body. Only three general applications were made, but within twenty-four hours, the child's temperature rose to 102° F., then to 107° F., associated with convulsions for three hours straight. Remissions were obtained with codeine, but the convulsions recurred later. Slowly the child lapsed into coma and died three weeks after the onset, apparently of a secondary pneumococcic invasion of the lungs. There were blindness and deafness, and albumin was found in the spinal fluid.

Boric acid is not a very strong antiseptic, although it seems to *inhibit* bacterial growth. Lembcke and others (*Am. Jour. Pub. Health,* 33:1263, 1943) have shown that it is not a potent bactericide. When it is used to irrigate the bladder, vagina, and other cavities, there is even greater danger than when it is used externally. There are articles to this effect in the *Lancet* and in *Arch. f. klin. Med.* (98:267, 1909).

Now that we have simpler, less dangerous and more effective germicides, what excuse can there be for continuing this old fashioned, superannuated remedy? Moreover, there is a medicolegal aspect which might prove disastrous if a physician prescribed or administered boric acid in any form which was succeeded by a fatality. Dr. Watson says that instead of using it as a collyrium, a weak, sterile solution of sodium bicarbonate is much more effective in removing exudates, and that is one of the chief reasons for using any eyewash at all. His final paragraph in this excellent and timely article should be remembered by all: "The medical profession as a whole probably puts unwarranted confidence in boric acid preparations and is likely to forget that boric acid is a poison."

Atomic Energy and Cancer

Although splitting the atom with the result that its released energy has proved so destructive that it is a menace to human and all animal existence, plant life, and indeed everything which comes within its range, it may yet be shown that its potency can be turned to the benefit of the world and the dwellers therein. The stored force of uranium may be employed in the discovery of the cause and treatment of certain diseases. The London *Lancet* in its September 1st issue, notes that, according to newspaper reports, in accepting a grant from the Sloan Foundation, the director of the New York Memorial Hospital for the Treatment of Cancer and Allied Diseases remarked, "it was believed that the release of atomic energy might be connected with the cause and cure of the disease".

If this extraordinarily destructive agent could be harnessed so that it could be applied in this direction, it would be indeed an epochal happening. It seems that this is possible, but only when much more is learned of the manner in which atomic energy can be released. That is to say, if it can be freed and then so controlled that it is no source of danger to anybody or anything. At present, enough is not known to afford any guarantee that it can be controlled effectively in order that its destructive powers are regulated rigidly. Also, it is not so much overpowering energy that is required for the cure of malignant disease, as a sufficiency of energy of the right kind properly directed. As a matter of fact, as a rule, there is now enough energy for treatment. What is needed most is that well directed energy should be made available, which will widen the margin of susceptibility between cancer cells and nearby normal cells. X rays and radium play their part to some extent, and it appears that increase of potency would make no difference; indeed, it might be harmful.

As far as is known, thus far, much more intimate and exact knowledge of atomic units in all their bearings must be acquired before it is used against malignant disease. It was because of the war that the destructive properties of atomic energy were learned so quickly, and it will take a much longer time to gain any exact knowledge of its constructive or beneficent properties gathered in times of peace when the spur of war is absent. Of course, the study of atomic units from the medical viewpoint will be pursued earnestly in those countries where it is possible to do so. In the

meantime, every effort must be made to render impossible its employment as a destructive agent. It should be pointed out that scientific knowledge of atomic energy is, up to the present, almost elementary, and knowledge of its probable use or value in medicine wrapped in obscurity. Medical research will make clearer some moot points.

Brachial Birth Palsy

Recently a letter of inquiry came from a physician in a neighboring state asking for "an outline of treatment of Duchenne's paralysis". Again, the use of a man's name to describe a pathological condition is to be deplored. In the early days of medicine, this was permissible perhaps, but with the advancing field, the wide research, and the overlapping of experiences, this tendency should wane. Probably we shall always speak of Graves and Bright and Addison with respect for achievements which were remarkable for the day and age in which they lived, but that day and age have long since passed, and our nomenclature should be more descriptive.

Thus, brachial birth palsy is a phrase which means just that it says. Although Duchenne in 1872 and Erb in 1874 attained eminence in this connection, it was a "forgotten man", Schmelli, who described it in 1768! Too often the accoucheur has been blamed for causing this condition through violence, but it does occur during spontaneous labor. The paralysis involves the infraspinatus, deltoid, and flexor muscles of the forearm, but it stems from injury to the fifth and sixth roots of the brachial plexus. Pressure of the fingers of the obstetrician upon the neck when making delivery is a competent cause, but an actual rupture of the fibers is more likely when the forthcoming head is fully flexed upon a shoulder. The opposite angle formed by neck to trunk may be stretched even to 145 degrees. The use of forceps can have little to do with it, although they may cause other paralyses, such as facial, for example.

Stander, in the 1945 edition of his *Textbook of Obstetrics*, on page 716 says that "the prognosis is fair, many children recovering." He admits that there are cases, however, of permanent paralysis. How these may be prevented or cured is the undeniable responsibility of every obstetrician. There are three types: those involving the upper arm, the forearm or the entire arm. In any case the arm falls to the side of the body with inward rotation, while the forearm is extended on the arm. The entire arm is motionless, but there may be finger movements. It is important not to tell the parents that "your child will grow out of it". Any child who comes to adult life will curse the physician who did nothing to relieve the condition. Kaiser Wilhelm was the most noted example of "the withered arm", and he always spoke bitterly of "neglect".

An orthopedic surgeon should be consulted at once. He may try a brace or support of the type made known by Sever. Three kinds of such appliances are to be mentioned, namely, the airplane splint, the platform splint, and the ninety degree plaster cast with the arm in abduction at the shoulder. All of these attempt to remove all traction from the brachial plexus. If, after three months trial there seems to be no response or insufficient response to electrical stimuli, open operation must be considered. Sharpe advised an operation as early as one month of age. The difficulties here are many because of the limited field, and the small size of the nerves which may be hard to identify. Methods of suturing are fully described in texts on neurosurgery. When the gap is wide, from two to four cm., splicing with a nerve graft seems imperative. From three to six months may be required for hopeful resumption of function.

Decision as to the nature of treatment to be advised must come from much experience. There are those who would operate upon all such patients, but we must remember that axones will regenerate if given a "trellis" upon which to travel. In pressure cases or where the nerve roots have not been torn through, conservative care may bring about a satisfactory result, but where there has been much destruction of the axones or complete severance, nothing short of resection of the nerve ends and grafting will suffice. Few of us are prepared to do this highly specialized work, but we can and must be able to determine a diagnosis at birth. The parents should be fully informed as to the possible causes of the disability and the probable outcome. It is heartening to know that the instances are fewer now than formerly, and that neurosurgery is highly skilled and competent to effect recovery where that is possible.

The Blind Person

It goes without saying that the other senses of a blind individual become extremely sensitive, and especially those of hearing and touch. Position of a blind person can be determined by reflected sound. It depends to some extent on at what age an individual becomes blind in regard to these senses becoming sensitive or supersensitive. If this affliction occurs in the young, it is quite likely that the loss of sight hardly seems to be a handicap. Numerous instances are recorded of persons, blinded early in life, who have risen to eminence. In the world of science, for instance, Euler who early became blind rivaled Newton in his mathematical discoveries. The discovery of the differential calculus, if it may be termed a discovery, was the cause of a prolonged controversy between the adherents of Euler and Newton. Another blind man, this time of British birth, was John Gough, who accom-

plished great things in science although totally blind from the age of three.

At the present time, research is being pursued at St. Dunstans London Home for the Blind to find out whether the knowledge acquired during the war in designing and devising instruments for direction finding, radio-location, and "blind flying" can now be put to use to aid the blind in their daily life. The Council of St. Dunstans has set up a committee for this purpose and this committee is to be known as the Sensory Devices for the Blind Committee. On the advice of this committee, St. Dunstans has decided to have a research unit and to seek to employ the full time services of a research physicist and a biologist. An anonymous benefactor has made this possible, as money has been forthcoming for the work of the committee for five years. The committee will consider blindness from all its aspects, not only investigating guiding devices for the blind, but also means by which the printed word in an ordinary book may be read aloud to the blind, an improvement on the ordinary methods in vogue, and the substitution of the sense of sight by the other senses. A certain amount of preliminary research has been undertaken already at St. Dunstans, for example, into direction-guiding machines. Captain H. G. Round has designed a guiding device which transmits a beam of light and receives the reflected ray. The work thus far mapped out, justifies further work in a similar direction, but it should be understood that these efforts are in their early stages and no definite results can be expected in the near future.

News Items

Nobel Prize Winners.—Sir Alexander Fleming, discoverer of penicillin, and his two co-workers in penicillin research, Sir Howard W. Florey and Dr. Ernest B. Chain, have been awarded the 1945 Nobel Prize for physiology and medicine. The recipients will share equally in the prize, which amounts to about $30,000.

Lecture to the Laity.—The first lecture in the 1945-6 series was delivered on Thursday evening, November 8th, at the New York Academy of Medicine by Dr. John F. Fulton, Sterling Professor of Physiology, Yale University School of Medicine. His subject was "Medicine today, its assets and liabilities". This lecture constitutes the Linsly R. Williams Memorial Lecture.

Symposium on Pregnancy.—The scientific program for a stated meeting of the New York Academy of Medicine, held on November 18th, was arranged by the Section of Obstetrics and Gynecology. The subject was pregnancy and the following papers were presented: Anemia in pregnancy, by W. B. Castle, professor of medicine, Harvard University; Hypertension in pregnancy, by Lewis Dexter, associate in medicine, Harvard Medical School; and Nutrition in pregnancy, by Philip F. Williams, obstetrician to the Presbyterian Hospital, Philadelphia, Pa.

Clinical Society of Reconstruction Hospital.—At a meeting of this society, held on October 17, 1945, the program was devoted to a discussion of injuries about the elbow. Illustrative cases were presented by: Henry H. Ritter, M.D., David Goldblatt, M.D., and Walter D. Ludlum, Jr., M.D.

Remington Gold Medal.—This medal, conferred each year for work judged most important to American pharmacy, has been awarded to Joseph Rosin, pharmaceutical chemist of Plainfield, N.J., in recognition of "contributions to scientific pharmacy and the development of drug standards for the protection of the public".

Second Harvey Lecture.—Dr. Alfred Blalock, professor of surgery and director of the Department of Surgery, Johns Hopkins University, and Surgeon-in-Chief, Johns Hopkins Hospital, will deliver the second Harvey Lecture at the New York Academy of Medicine, Thursday evening, November 15th. His subject will be "Physiopathology and surgical treatment of congenital cardiovascular defects".

Promotions.—Five colonels in the Medical Department of the Army have been promoted to the rank of brigadier general. They are: Dr. William C. Menninger, director of the Neuropsychiatry Consultants Division, Office of the Surgeon General; Dr. Robert M. Hardaway, commanding officer of Bushnell General Hospital; Dr. Clyde McKay Back, commanding officer of Ashford General Hospital; Dr. Sidney L. Chappell, commanding officer of England General Hospital, and Dr. Edward A. Noyes, surgeon of the Fifth Service Command.

The Gorgas Medal.—Captain Lowell T. Coggeshall, Medical Corps, U.S.N.R., has been awarded the Gorgas Medal for 1945 "for distinguished service to our military forces in establishing new principles in the management of patients suffering from psychic disturbances as well as physical deterioration from the effects of malaria and filariasis". The citation also stated that Captain Coggeshall instituted the system of psychosomatic rehabilitation by which thousands who faced discharge attributed to malaria and filariasis were returned to full duty. The medal was presented to Captain Coggeshall on October 29th at a dinner given in his honor by the Association of Military Surgeons.

The Salmon Lectures.—The subject of the 1945 series of Salmon lectures will be "The Biology of Schizophrenia". These lectures will be delivered by Dr. Roy Graham Hoskins on November 2d, 9th, and 16th, at the New York Academy of Medicine. The first will discuss Biology of man in relation to schizophrenia; the second, the pattern of schizophrenia; and the third, the biological appraisal of schizophrenia. Dr. Hoskins, who is research associate in physiology, Harvard Medical School, and director of the Memorial Foundation for Neuro-Endocrine Research, Boston, and of the Worcester State Hospital, Worcester, Mass., is internationally known for his contributions to both the neuroendocrinological and physiological fields. He has had many scientific affiliations, has been active in the journalistic field, and is at present serving as a member of the advisory committee on endocrinology of the National Research Council and secretary of the Worcester Foundation for Experimental Biology.

Friday Afternoon Lectures.—The following lectures in the twentieth series being given at the New York Academy of Medicine are scheduled for the month of December: December 7th: Senescence of the myocardium—presbycardia, by William Dock, professor of medicine, Long Island College of Medicine; December 14th: The therapeutic and toxic actions of some drugs recently introduced in the treatment of cardiac disorders, by Arthur C. DeGraff, Samuel A. Brown professor of therapeutics, New York University College of Medicine; and December 21st: Hemorrhages in the viable period of pregnancy, by Ralph L. Barrett, attending surgeon, Woman's Hospital.

Antivenin from Okinawa Snakes.—Several different species of snakes have been imported from Okinawa to aid in experiments for the production of American antivenin, according to the Office of the Surgeon General. These snakes were placed in the Washington Zoo where venom was taken from them for experimental work in the biological laboratories. There are no snakes similar to these in America. Experiments are under way to determine the effectiveness of American antivenin obtained from these Okinawa snakes. Analyses are also being made of samples of Japanese antivenin which were captured on Okinawa.

New Grants for Sugar Research.—Dr. Robert C. Hockett, scientific director of the Sugar Research Foundation, has announced that new grants for research, amounting to $38,200 have been awarded by the Foundation to eight universities and a State experimental station. The recipients of these grants are: Purdue University, University of Utah, University of Texas Medical School, University of Wyoming, Emory University Medical School, the California Institute of Technology, Tuft's Dental College, University of Rochester, and the New Jersey State Experimental Station. The studies will seek new industrial uses of sugar and will further explore the values of sugar as a food. In some cases, Dr. Hockett announced, studies directed toward assisting the war effort would need to have their objectives modified, while others, such as research on technological and practical problems, which were not feasible during wartime, he said, could now be given serious consideration.

Blue Cross Plans.—Plans for extending prepaid hospitalization to every employed person in the country were discussed at the national conference of Blue Cross Plans, held in New York on October 29-31. The conference was attended by hospital leaders and representatives of the nineteen million persons affiliated with America's eighty-seven Blue Cross Plans. The speakers included Louis H. Pink and Frank Van Dyk, president and vice-president, respectively, of Associated Hospital Service of New York which serves more than two million Blue Cross subscribers in Greater New York. The conference was concerned with methods of making hospitalization service nation-wide. Other projects discussed included cooperation with management and labor to include health benefits in wage agreements, convenient transfers and out-of-town benefits, recommendations for extending medical and surgical bill prepayment plans, encouragement of individual and community enrollment with emphasis on rural areas, payroll deduction for federal government employees, and coordination with tax-supported programs of medical care.

Sister Kenny Foundation.—Dr. Floyd S. Clarke, Omaha, Nebr., Dr. James D. Dyson, Des Moines, Iowa, Dr. John F. Pohl, Minneapolis, Minn., R. Roland B. Scott, Washington, D.C., and Dr. George M. Uhl, Los Angeles, Calif., have been appointed co-chairmen of the medical division in the 1945 Sister Kenny Foundation drive to fight infantile paralysis. The drive for $5,000,000 will get under way November 22d and continue through December, and will be patterned along lines of the annual Red Cross, Community Fund and similar appeals. Half of the funds collected will remain with state committees to establish Kenny clinics at strategic locations throughout the country. The remaining half of the drive's proceeds will go to the national Sister Kenny Foundation organization.

National Committee for Mental Hygiene.—The thirty-sixth annual meeting of the National Committee for Mental Hygiene was held in New York, Thursday and Friday, November 1st and 2d. Peacetime mental hygiene issues vital to both veterans and civilians were discussed, including such subjects as job discrimination, education and rehabilitation of veterans, federal plans for protection and promotion of mental health, and improved country-wide facilities for psychiatric patients. At the luncheon meetings two awards were made. These were the Lasker Award, established in 1944 by the Albert and Mary Lasker Foundation, Inc., for the most outstanding contribution in the field of rehabilitation during the past year, and the award to the winner in an essay contest on improved hospital treatment of psychiatric patients, conducted by *The Modern Hospital*. Dr. George S. Stevenson is medical director of the committee.

Release of Medical Personnel.—During September and the first four days of October, the Army Medical Department has released 2,700 doctors from the service and by Christmas it is expected that a total of 14,000 doctors will have been released, according to a statement by Brigadier General Raymond W. Bliss, Acting Surgeon General of the Army. Through the months of July and August approximately 1,300 doctors were released. General Bliss pointed out that with the high hospital load in this country, a large number of doctors are needed to staff hospitals and separation centers, which are now at peak operation. These centers require a total of two thousand doctors.

Regular Army Officers to Receive Professional Treatment.—One hundred regular army officers have been assigned to Army General Hospitals and medical installations as part of the Army's new plan to give professional training to officers of the regular Army Medical Department. Under this policy, the regular Army Medical Corps officer will be assured a professional career and will receive graduate training, aid in obtaining board certification for medical specialties from recognized civilian practice. The new program also offers opportunities for regular army officers now doing administrative work to understudy doctors who have been active in professional practice during the war. Twenty-one of the one hundred officers have been assigned to specialize in internal medicine, and thirty-three in general surgery. The others are assigned to radiology, eye, ear, nose, and throat, anesthesiology, neuropsychiatry, urology, pathology, orthopedics, obstetrics, gynecology, and public health.

Personal.—Dr. Anthony Bassler, New York, has been reelected president of the National Gastroenterological Association for a term of one year.

Lieutenant Colonel Wallace Graham, Medical Corps, U.S. Army, has been appointed personal physician to President Truman, the appointment to take effect upon the return to Washington of Vice-Admiral Ross T. McIntire, now absent on official business.

Colonel Howard A. Rusk, Medical Corps, A.U.S., has been appointed consultant on physical rehabilitation for the Baruch Committee on Physical Medicine. His headquarters will be at the New York office of the committee. Before the war Colonel Rusk was instructor in medicine at Washington University School of Medicine, St. Louis, Mo.

Surgeon General David Lindsjo and Surgeon Commander Karl Erick Groth of the Royal Swedish Defense Forces recently visited numerous Army installations in the United States, by special invitation of the War Department. They came to America for the purpose of studying the organization and training methods of the Army Medical Department. Their itinerary included several Army General Hospitals, medical schools, supply depots, research and equipment laboratories and medical induction and separation centers.

Dr. Irvine H. Page, of the Cleveland, Ohio, Clinic Foundation, read a paper on the nature and treatment of hypertension at a meeting of the New York Cardiological Society, October 17th.

Lt. Col. I. H. Scheffer, New York, has been appointed chief of the public health section of the military district of Berlin. Before the war, Dr. Scheffer was superintendent of the Metropolitan Hospital, New York.

Ray E. Brown, former superintendent of the North Carolina Baptist Hospital, Winston Salem, North Carolina, has been appointed assistant superintendent of the University of Chicago Clinics.

Lt. Colonel Staige D. Blackford, M.C., who served thirty months in Italy and North Africa as chief of the Medical Service of the Eighth Evacuation Hospital and for the past two months as chief of the Medical Service at Valley Forge General Hospital, has recently returned to his civilian position of associate professor of internal medicine in the department of medicine at the University of Virginia.

Major General George C. Dunham, who has served in the Army Medical Corps since 1916, has submitted resignation as president of the Institute of Inter-American Affairs and Deputy Director of the Office of Inter-American Affairs, due to reasons of health. He will succeed Nelson A. Rockefeller as chairman of the Board of Directors of the Institute. General Dunham's successor as president of the Institute of Inter-American Affairs is Colonel Harold B. Gotaas, formerly director of the Health and Sanitation Division of the Institute.

Lt. Colonel William M. Murphree, M.A.C., control officer at Carlisle Barracks, Pennsylvania, was recently retired at his own request, terminating thirty-five years of service with the Army. He plans to return to his home in San Antonio, Texas, where he will be associated with an ammunition company there.

Dr. Walter L. Hard, of the histology department, University of Maryland School of Medicine, has been appointed assistant professor of anatomy at the Medical College of the State of South Carolina.

Fiftieth Anniversary of Chicago Lying-in Hospital.—The fiftieth anniversary of the founding of the Chicago Lying-in Hospital and Dispensary of the University of Chicago, was celebrated on October 29th. A program of clinics and papers was presented by members of the professional staff of the hospital and by distinguished scientists from other institutions Dr. William J. Dieckmann, chief of service at the hospital, was assisted in the clinics by Dr. Fred L. Adair, professor emeritus of the University of Chicago and four members of the staff of the hospital, Dr. M. Edward Davis, Dr. H. Close Hesseltine, Dr. Edith Louise Potter, and Dr. J. R. Willson. Among the speakers were Dr. Frederick C. Irving, obstetrician-in-chief of Boston Lying-in Hospital; Dr. Henricus J. Stander, obstetrician-in-chief of New York Lying-in Hospital; Dr. Edwin C. Hamblen, Duke University School of Medicine; and Dr. Norman F. Miller, University of Michigan department of obstetrics. At the anniversary dinner, the Chancellor of the University of Chicago received a check for $100,000 from the board of directors of the hospital, which is to be used for research in the fields of eclampsia and puerperal fever.

Russian Relief for Amputation Cases.—The first shipments of materials for a detailed network of hospitals, a central factory, and workshops in the Soviet Union, specializing in the care of amputation cases caused by the war, have been sent by the American Society for Russian Relief, according to Lewis V. Mays, chairman of the agency's Hospital Supplies Committee. Subsequent shipments will include the rest of the material necessary to equip hospitals for the treatment of soldier and civilian amputation cases, one factory for the manufacture of artificial limbs, and workshops that will be attached to each of the hospitals, for individual fittings of limbs made at the central plant. The project was initiated at the request of Professor Nikolai N. Priorov, director of the Central Institute of Orthopedics and Traumatology in Moscow. Priorov headed a medical mission to the United States nine months ago to observe American methods of treating amputation cases and will be in charge of the unit's total operations.

History of Public Health in Minnesota.—The Minnesota Historical Society has received from the Mayo Properties Association, Rochester, a gift of $25,000 which will be used for the preparation and publication of a history of public health in Minnesota. Dr. Charles N. Hewitt, who came to Red Wing, in 1866 after serving as a surgeon in the Civil War, was the trailblazer of the public health movement in Minnesota, and it was his contention that Minnesota promote the fight for good health. Through his efforts, a Minnesota state board of health was established in 1872. Dr. Hewitt served as its head for twenty-five years, and to further the cause, he started a magazine called *Public Health*. Much progress has been made during the passing of the years. Quarantine for contagious diseases has been made compulsory, vaccination demanded; pure food laws passed, a war against diseases in livestock organized. With this background of pioneering in public health, the Minnesota Historical Society will through this generous gift from the Mayo Properties Association, be able to record for the people of the state what has gone before in the dynamic history of the public health movement.

Book Reviews

Traumatic Surgery

Clinical Traumatic Surgery. By JOHN J. MOORHEAD, M.D., B.S., F.A.C.S., formerly professor of clinical surgery, New York Post-Graduate Medical School, Columbia University. With five hundred illustrations. Philadelphia and London: W. B. Saunders Co., 1945. Pp. 747. Price $10.00.

Dr. Moorhead's vast experience has been gained at the New York Post-Graduate Hospital and many other like institutions, as medical director of the New York City Transit System, as a Colonel in the Medical Corps, U.S. Army, and through a large private practice. Therefore no one is better qualified through "surgical contacts", but above and beyond all this, he has great gifts as teacher and expositor—qualities which do not always inhere. His teaching is of the 1, 2, 3 and A.B.C. type, quick, crisp and positive without equivocation or doubt. Hence, he inspires and deserves the confidence he so richly enjoys.

The book begins with "A Surgeon's Prayer in Wartime", thereupon reminding us of the incomparable Osler, and the astute, comprehending Robert Louis Stevenson. It ends with ". . . the sulfa and penicillin groups of drugs are only allies in the fight against infection. The main factor in success is the availability of early treatment by the skilled surgeon." Dr. Moorhead's great and timely surgery at Pearl Harbor is widely known. Fortunately he had with him his "foreign body locator" which at that time he had not widely used. It is now equipped with a sound device and is better able to determine the presence of nonmagnetic objects, notably lead. "To date, eighty-three surgeons have reported to me the removal of 162 foreign bodies without a failure." This alone is ample cause for medical (or surgical) immortality. Every surgeon, the author says, must recognize three hard-riding "horsemen"; namely, shock, hemorrhage and infection which lead to disability, deformity and death. Time, equipment and surgical skill are always pitted against fate, and in the nature of things fate sometimes wins, but in these latter days recovery is the rule. It is impossible to quote even a fragment of wisdom from this truly great book, but it is sure to become "standard" for the years beyond.

Acute Medical Conditions

The Diagnosis and Treatment of Acute Medical Disorders. By FRANCES D. MURPHY, M.D., F.A.C.P., professor of medicine, Marquette University School of Medicine. Illustrated. Philadelphia: F. A. Davis Co., 1945. Pp. 509. Price $6.00.

The acute episodes of disease and the emergencies which at times attain life-endangering importance must be regarded as among the most disturbing problems that confront the practitioner of medicine. The recognition of this fact led Dr. Murphy to undertake the preparation of a volume which is unique, in that it is devoted entirely to the diagnosis and treatment of those acute conditions which ordinarily come under the observation of the internist and general practitioner. The subjects discussed in his book have been selected because, over the years, the author has found them to be the acute conditions which he has most frequently encountered. When a physician is faced with an acute episode in the course of a disease, he needs precise information in a concise and readily available form. This volume is the only text with which we are familiar that meets these requirements and makes it possible for the hard pressed doctor to obtain urgently needed help without searching numerous comprehensive medical texts.

Dr. Murphy has sought to make this book essentially practical. To that end, long discussions of etiology and pathology have been sacrificed, and diagnosis, especially differential diagnosis, and treatment emphasized. The management of patients has been gone into with great detail, so that the reader can obtain exact information as to how to carry out the suggested therapies. It will be found that the acute situations with which the doctor is ordinarily confronted are all covered in this volume.

The author is to be congratulated upon having produced a work of unusual value and which reflects his own ideas and experience. It should prove of especial interest not only to medical students and young physicians, but also to those of ripe experience who, nevertheless, are only too often puzzled and disturbed by the acute and dramatic manifestations presented by most medical conditions.

Trauma

Trauma in Internal Diseases. With Consideration of Experimental Pathology and Medicolegal Aspects. By RUDOLF A. STERN, M.D., assistant attending physician, City Hospital, New York. Foreword by FRANCIS CARTER WOOD, M.D., director of laboratories and radiotherapy department, St. Luke's Hospital, New York. New York: Grune and Stratton, 1945. Pp. 575. Price $6.75.

The dedication of this book is "to Francis Carter Wood, M.D., with admiration and gratitude." Dr. Wood in his foreword states that in no field of medicine is it more difficult to form sound opinions of value to the courts than in internal diseases said to have been caused by trauma.

Dr. Stern says that there are ten million accidents in the United States yearly, that the war is multiplying this number, and that the medical profession has a grave responsibility in securing a fair adjustment of claims. It seems that "social legislation" was common in Europe years before we had "workman's compensation" here. Nobody's experience taken alone is sufficient to form accurate judgments as to the nature and extent of internal diseases which follow trauma. Therefore, such judgment must be based on a wide acquaintance with case reports from the abundant literature, but these are scattered so widely that the task of getting the data together is enormous. The *raison d'être,* therefore, for this book becomes at once apparent. While a malingerer may "get away with feigned illness", and does do so at times, there are blatant instances of injustice. A workman slipped and fell on a sewer pipe he had been carrying. That night he vomited and showed all signs of acute appendicitis. Operation confirmed a ruptured appendix with abscess and peritonitis. Recovery followed a stormy convalescence. The WPA in Washington held that there was no such thing as traumatic appendicitis; therefore, rights of compensation were denied. How many clinicians when called to "the stand" would or could support such a sweeping generalization?

The chapters dealing with traumatic aggravation of existing circulatory disease is of especial importance, since a great group of workers past middle age prob-

ably have some pathological condition in the heart or vessels, or in the blood itself. One who appears as an "expert witness" needs to know intimately what has happened in such cases where ill health is claimed as a result of "the job". This is a valuable book for all who come in touch with medicolegal problems.

Artificial Pneumothorax

Artificial Pneumothorax in Pulmonary Tuberculosis. Including Its Relationship to the Broader Aspects of Collapse Therapy. By T. N. Rafferty, M.D., Phoenix, Ariz. Introduction by Henry Stuart Willis, M.D. New York: Grune and Stratton, 1944. Pp. 192. Price $4.00.

It is said that Hippocrates injected air into a human chest, but the world waited for Forlanini (1892) and Murphy (1898) to produce case reports which seemed convincing in the treatment of pulmonary tuberculosis. Since 1900, lung collapse has had its protagonists and antagonists. The matter has been confused; opinions conflicting. Surgeons have stripped the pleura from the chest wall and called it external pneumonolysis, or have tried to separate the two pleural layers and have called it internal pneumonolysis. The phrenic nerve has been severed or resected, thus paralyzing the diaphragm on the affected side and allowing the viscera to push the diaphragm against the collapsing lung. All of these measures are of a temporizing nature, for they do not kill the tubercle bacillus; they merely put the lung to rest, and thus eliminate its function entirely. At best all such procedures are indirect, but they do, doubtless, help to prolong life, in spite of their difficulties and drawbacks . . . Any patient who is faced by the dilemma of collapse or status quo can find little to guide him. Nobody but an "expert" is at all qualified to do so, and these experts still differ. This book is an attempt to clarify the situation. It does all that it can to that end, but adducing facts and figures from all the testimony that can be collated may not help much in deciding the procedure to be used in a given case, or even whether any procedure at all ought to be tried. For the general practitioner, valuable advice appears on page 5. When may a patient be discharged as "cured"? We do not know, but we may adopt a rule with fair safety; namely, when many sputum reports are persistently negative, when the chest films are assuring as to calcification of foci, and when the patient from a psychosomatic viewpoint seems fitted to return to a normal place in society.

Endocrinology

The Diseases of the Endocrine Glands. By Hermann Zondek, M.D., director of the Medical Division, Bikur Cholim Hospital, Jerusalem. Fourth (second English) edition. Translated by Carl P. Giles, M.D., M.R.C.S. Baltimore: The Williams & Wilkins Co., 1944. Pp. 496. Price $11.00.

This translated edition embodies the results of recent clinical research. It remains a book for the clinician devoid of experimental chemical advances that have illuminated modern endocrinology. The author describes pathological syndromes in terms of pathological physiology but chemical aspects are not included. Nevertheless, the fundamental hypotheses upon which this book is based are as follows:

1. Hormonal effect is not an absolute but a variable quantity, depending not least upon the momentary condition of the organ on which it acts, more especially the physiochemical conditions of its cells. 2. Functional and anatomical changes in endocrine glands should not always be regarded as the cause of disease, but in many cases as the reaction of the glands to morbid processes primarily located in certain other organs. 3. With phylogenetic evolution and progressive differentiation of cellular functions, the hormone appears on the scene as the intensifier of such functions; even in the most highly developed beings, however, not all of them are indispensable to life. 4. The endocrine system is but one link in the chain of vegetative functions of the organism. This should be emphasized in order to avoid the danger of overestimating the rôle of hormonal factors. The arrangement of the material is in terms of diseases, irrespective of their glandular origin, rather than of individual hormone glands, thus laying emphasis upon endocrinology in terms of pluriglandular syndromes. After a general discussion of the physiology of glandular systems and diseases, diseases are described without relation to their particular glandular dominence. The illustrations are clearcut and illuminating. The text is clearly and concisely presented but the references are predominantly to German literature and hence devoid of recent American chemical contributions.

Roentgenology of Digestive Tract

Clinical Roentgenology of the Digestive Tract. By Maurice Feldman, M.D., assistant professor of gastroenterology, University of Maryland. Second edition, with illustrations. Baltimore: The Williams and Wilkins Company, 1945. Pp. 769. Price $7.00.

This clinical guide to roentgenographic consideration of the gastrointestinal tract is invaluable in diagnostic problems. The subject matter is arranged anatomically, each chapter presenting the structural and functional basis for roentgenographic evidence of disease, congenital and acquired. Authoritative literature is given after each chapter to substantiate newer approaches to controversial issues. The book represents a masterly approach to common aspects of roentgenology and is an invaluable guide to the practitioner in arriving at an accurate evaluation of a difficult patient with gastrointestinal symptomatology.

Medical History

The Modern Medical World. Portraits and sketches of distinguished men in medicine. By Solomon R. Kagan, M.D. Boston: The Historical Press, 1945. Pp. 244. Price $6.00.

This volume is a remarkable contribution to medical history. The author has compiled 291 portraits and sketches of the great men of medical sciences the world over, and among the portraits are many which appear for the first time in medical literature. The work is also a valuable supplement to the modern period of Fielding H. Garrison's classical *History of Medicine.* Garrison brought this period up to 1928. Since then, many of the men included in Garrison's book, have made important contributions to medicine, which have been recorded by Dr. Kagan for the first time. In addition, many men, who in Garrison's time were only beginners, have now become leaders in medicine, and their work recorded for the first time by Dr. Kagan.

Dr. Kagan, a pupil and bibliographer of Garrison, has followed the steps of his teacher. His sketches are given in the form of *multum in parvo,* are instructive, interesting, and well written. We owe a debt of gratitude to Dr. Kagan for this excellent medicohistorical contribution to our literature.

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NOVEMBER 1945

Medicolegal Notes

Nonliability of Charitable Hospitals to Strangers

The Oregon Supreme Court declares itself committed to the view that an eleemosynary institution is exempt from liability for acts of negligence, based on a review of prior Oregon decisions in point. (Gregory vs. Salem General Hospital, 153 P. 2d 837.) These prior Oregon decisions show that exemption exists whether the tort was committed upon a stranger to the charity or upon one who was receiving its services. The Oregon Court having adopted the trust fund theory of exemption, it made no difference whether due prudence was exercised in the selection of the tortious servant or whether he was inadvisedly chosen. The trust fund could not be depleted in either event. In this case the plaintiff was a paying patient who alleged injuries from a hot water bottle placed by a hospital nurse in his bed after arranging the covers in such a way that plaintiff could neither eject the bottle nor avoid contact with it, and also alleging negligence of the hospital in failing to provide plaintiff with a call signal so that he might summon aid.

"Severe attacks have been made upon the doctrine that a hospital is exempt from liability for its negligence. The most penetrating is the president and director of Georgetown College vs. Hughes 130 F. 2d 810; one of the first decisions to criticize the exemption rule and to discard it is Tacker vs. Mobile Infirmary Ass'n 191 Ala. 572, 68 So. 4."

The Hughes case is exhaustive in its collection of cases and treatises which analyze, support or criticize the doctrine of exemption from liability.

Speaking as a court of the State of Oregon the court concluded: "The doctrine of *staro decisis* requires us to follow the rule that eleemosynary, religious and educational institutions are exempt from liability from their acts of negligence. If a change is to be made in that rule, it will have to come, as stated in 16 Oregon Law Review 357, from the legislature. The rule pertains, not only to hospitals, but to a wide variety of other institutions. A judicial change in the rule would affect not only the future but would relate back to the period of limitation. The rule as employed by our courts has become firmly established in this state, and public policy demands that when an issue, especially one which affects property rights, has been deliberately determined by a court of last resort, it should be deemed settled and closed. We so deem the rule of nonliability now under consideration".

Estimation of Damages Sustained

A judgment for $13,695 for personal and property damage, caused by an explosion and fire in plaintiff's undertaking establishment, allegedly caused by the defendant's negligence in permitting natural gas to escape from its mains into the basement of the plaintiff's building, was affirmed. (Davis vs. Kansas Electric Power Co., Kansas Supreme Court, 152 P. 2d 806.)

The defendant's company in this case argued that the jury gave the plaintiff too much for his personal injuries. The plaintiff had apparently been reimbursed by insurance for the property damages. As to these damages there was no controversy or appeal. As to the personal damages the court said: "Plaintiff's testimony was to the effect that he was thrown into the air by the explosion; that he fell on the floor, and was bruised in several places; that a dormant hernia was aggravated, and that he had not fully recovered from these injuries. His testimony was supported by his family physician, and there was no medical evidence to the contrary. "We know the difficulty of estimating the amount of damages one sustains by such injuries. The jury and trial court were in much better position to do that than we are. We are unable to say that the amount allowed on this item was excessive."

The plaintiff here alleged personal injuries and the amount of damages claimed was $2,500. His total claim was for $21,451.36. A syllabus to the court's opinion was to the effect that $2,083 for the aggravation of a dormant hernia and other injuries to a seventy year old undertaker was not excessive.

Examination Before Trial in X Ray Action

A plaintiff was held entitled to an examination before trial of the defendant concerning the nature of an x ray treatment given to the plaintiff, in an action for injuries sustained by the plaintiff as the result of alleged negligent x ray treatment. Aulick vs. Startz, New York Supreme Court, Special Term, 53 N.Y.S. 2d 851.

Reasonable TREATMENT OF HYPERTENSION

Successful management of high blood pressure calls for a regimen which is adjusted to individual requirements. Physical activity is generally curtailed and overwork is avoided. In certain circumstances special diets are prescribed and the use of stimulants is restricted.

These measures are often supplemented with the administration of Theominal. This combined vasodilator and sedative aids in reducing blood pressure to a more normal level. As a consequence hypertensive symptoms are relieved and the risk of complications is reduced.

DOSAGE: The customary dose of Theominal is 1 tablet two or three times daily; when improvement sets in the dose may be reduced. Each tablet contains theobromine 5 grains and Luminal* ½ grain.

*Luminal (trademark), Winthrop Chemical Company, Inc., brand of phenobarbital.

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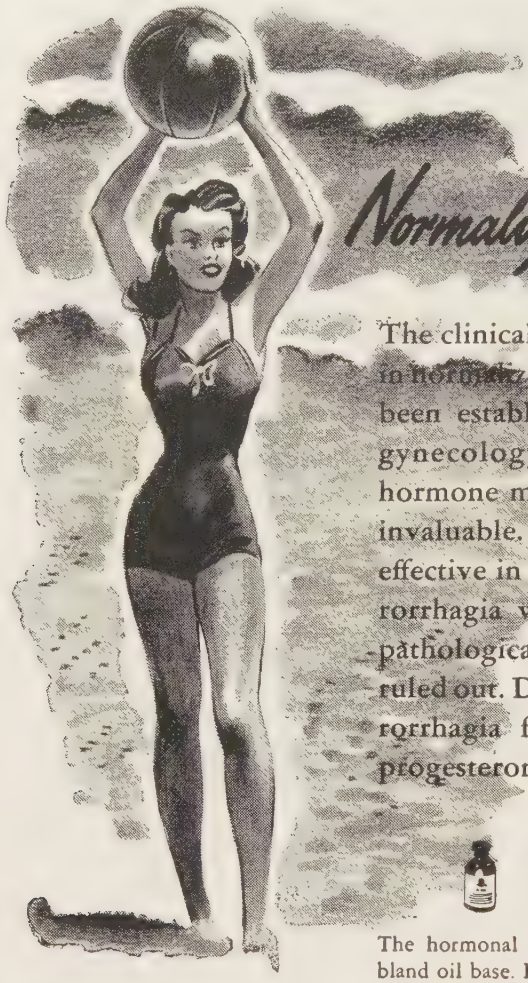

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The clinical value of progesterone in normalizing the menses has long been established. In the field of gynecology, this corpus luteum hormone may well be considered invaluable. Progesterone is equally effective in menorrhagia and metrorrhagia when, of course, local pathological conditions have been ruled out. Dysmenorrhea and metrorrhagia frequently respond to progesterone therapy.

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Tuberculosis

Most of the tuberculous patients who seek medical aid today have had many reinoculations with many resultant foci of varying degrees of severity. The best that clinicians can do in a short course of treatment in such a chronic disease is to secure a truce between the patient and his bacilli, a truce which may be broken on either side: by the bacilli if their environment becomes congenial for their growth and multiplication; by the patient if he can increase his resistance sufficiently, maintain it at a high level, and thus prevent the bacilli from further activity.

Here is where we are making one of our most abject failures in treating tuberculosis. Both physicians and patients are prone to lose interest; and treatment is often interrupted before healing has been attained. By relaxing measures necessary to complete healing, the patient's defensive powers are allowed to lower, the tissues lose their resistance and new activity starts. Thus are caused the many relapses which plague us and make us almost lose confidence in therapeutic measures. A little longer treatment and a great deal longer extension of the careful life after treatment has been finished, and a full rehabilitation of the patient before he is discharged from observation, and many of the reactivations which we speak of as "breakdowns" would be avoided and many sources of infection would be permanently instead of temporarily eliminated.—F. M. Pottenger, M.D., *Amer. Rev. Tuberc.*, Aug. 1944.

* * *

Sound public health practice demands that the method used in mass radiography for the control of tuberculosis be one which benefits the largest number of persons in industry or the community. When available funds

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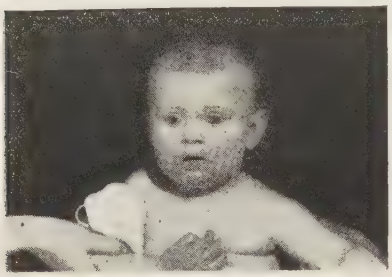

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*Swartz & Reilly, *"Diagnosis and Treatment of Skin Diseases"*, p. 66
**Survey by independent research organization; details on request.

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are limited, it is of greater value to examine one hundred thousand persons with small films and miss a few minimal cases than to examine only one-tenth of that number at about the same cost, using large celluloid films and leaving ninety thousand persons without benefit of any x ray examination whatever.—H. E. Hilleboe, M.D. and D. M. Gould, M.D., *J.A.M.A.*, May 24, 1944.

* * *

The medical profession has followed the conservative idea of waiting until a patient becomes sufficiently ill to seek advice. Thus, they have always been handicapped in the treatment of pulmonary tuberculosis because of the fact that a patient ordinarily is not seen until he has symptoms. In tuberculosis this can only lead to grief, for by the time symptoms appear the disease has passed the optimum period for treatment. The use of chest x rays of the apparently healthy is the best known method of determining early tuberculosis. —C. Howard Marcy, M.D., *Diseases of the Chest*, May-June, 1944.

* * *

It has been argued that if tuberculosis were made uniformly compensable, it would soon be wiped out; but it is obviously unfair to ask industry and the insurance carrier to take upon their shoulders the accrued liabilities of tuberculosis in industry. When industry and the worker realize the terrible cost in manpower and human suffering that tuberculosis entails, and that a method of control is feasible, then case finding in industry will be more eagerly accepted and may, in fact, be one of the outstanding contributions to public health that will survive this war.—Irving R. Tabershaw, M.D., *Industrial Medicine*, March 1943.

in whooping cough

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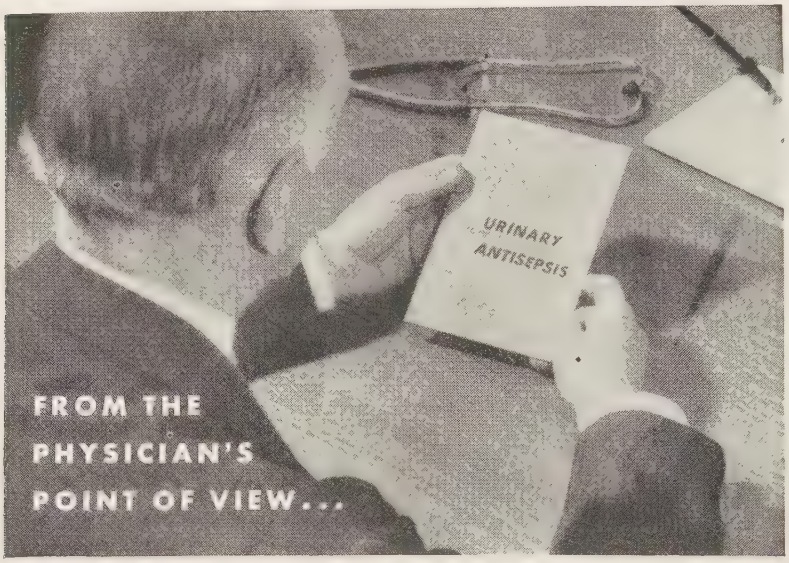

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Combat exhaustion cases, known as shell shock in the last war, and sometimes referred to as combat fatigue or operational fatigue, are being treated more successfully in this war because of the high quality of personnel in the field and better methods and techniques. Of the greatest importance is the fact that our psychiatrists are doing some of their most effective work right up near the front at the clearing stations.

Dr. Karl Menninger, a member of the commission and director of the Menninger Clinic, Topeka, Kansas, pointed out that alert and understanding sergeants and lieutenants in the front lines are anticipating cases of combat exhaustion. Symptoms are increasing irritability, lack of interest in letters from home and in comrades, and general lassitude and moroseness. A man who has reached this stage but who has not yet come to the breaking point can usually be brought back to normal by prompt evacuation to rest camps for relief from stress of battle.

Other findings were: A direct ratio between the number of exhaustion cases and the intensity of combat; combat exhaustion emphatically does not mean a soldier is "yellow", every man has his breaking point; a martyr situation more quickly induces combat exhaustion.

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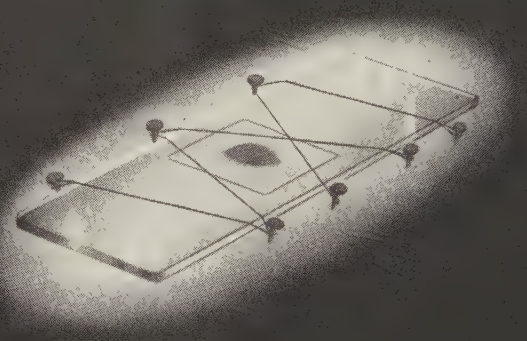

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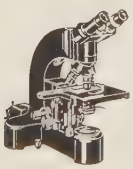

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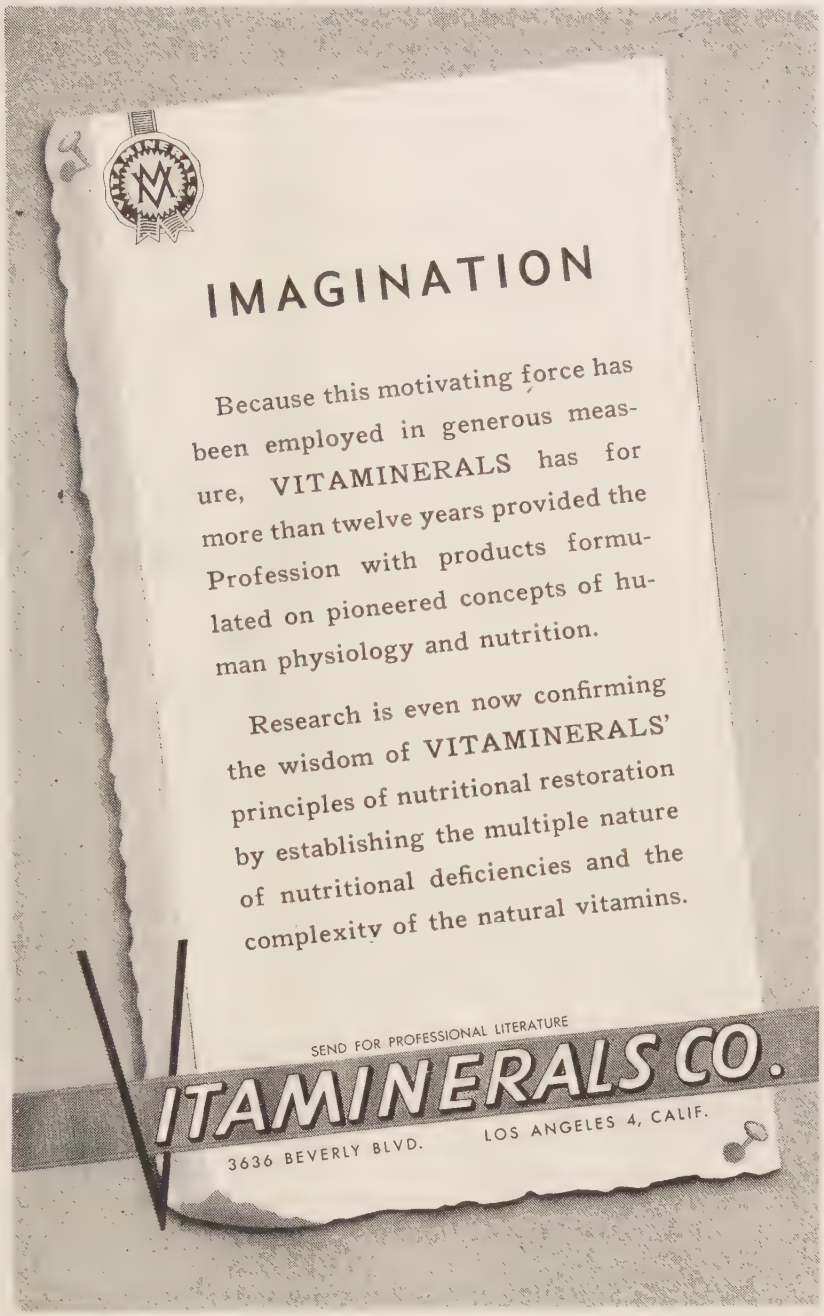
Contagious Diseases Among Dutch Children

Infectious diseases due to malnutrition are continuing to take their toll among the children of Holland. Thousands of youngsters are suffering from tuberculosis, dysentery and diphtheria, and the already overcrowded hospitals are unable to cope with the unprecedented demands upon their services. Owing to the difficulty of obtaining nourishing foods in the western part of Holland, tuberculosis has become prevalent. Infants and very young children have become especially susceptible to diseases because of the lack of pure milk. The Nazis took away a large number of cows to help feed their own people. Insufficient pasteurization of available milk, the lack of clean clothing, and the scarcity of fuel for heating homes during the winter months were contributory factors in undermining the physical resistance of these children. Diphtheria and various skin diseases, including scabies, are particularly prevalent among babies and children under four. Medical officials are doing all they can to fight disease, but they are hampered by a severe shortage of medicines, ointments, bandages and instruments. Even babies' bottles, disinfectants and ingredients for such simple remedies as cough syrup are unavailable. Another handicap is the lack of sanatoria for the hospitalization of tuberculosis victims. Doctors fear that home nursing of tuberculous patients may spread the disease to the rest of the population. In order to check any increase of various diseases, repatriates from Germany undergo a strict physical examination, and are under obligation to take an x ray for tuberculosis one week after their return to civilian life.—*Medical Times*, August 1945.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International College of Surgeons.—The tenth national (victory) assembly of the United States Chapter of the International College of Surgeons will be held in Washington, D.C., December 6th, 7th, and 8th, under the presidency of Dr. Herbert Acuff, Knoxville, Tenn. December 6th has been set aside as "exhibitors' day", when informative technical and scientific exhibits will be shown. The assembly convenes officially on December 7th. Dr. Custis Lee Hall, of Washington, D.C., is the general chairman, and the program will include the following addresses:

Dr. Garnett W. Ault, Ulcerative colitis; Lt. Colonel Wilbert H. McGaw, Pneumographic differential diagnosis in internal derangements of the knee joints; Captain Winchell Graig, Reconditioning of spinal cord injuries; Dr. Edgar Davis, Tumors of the lung; Dr. Charles Stanley White, Amino acids in surgery; Dr. J. Ross Veal, Circulatory disturbances of the lower extremity; Dr. Elmer Hess, Conservative renal surgery; Dr. Clark Brooks, Gallbladder surgery; Dr. Albert A. Berg, Terminal ileitis; Lt. Colonel Benvenuto R. Dino, Salvaging medical education in the Philippines; Dr. Emil J. C. Hildenbrand, Refrigeration anesthesia; Dr. Roland Klemme, Major neuralgias; Dr. Moses Behrend, Phlebitis, embolism and thrombosis; Dr. James Watts, Psychosurgery for the relief of unbearable pain; Major General Paul R. Hawley, Surgery in the European theater of operations; Lt. Colonel Brian Blades, Recent advance in treatment of chronic empyema; Dr. Eduardo Caceres, Cancer of the larynx; Dr. E. A. Rovinstine, Alleviation of pain in angina pectoris by nerve blocking; and Dr. W. J. Carson, Hypothyroidism. Dr. Louis J. Gariepy, of Detroit, Mich., is secretary of the chapter.

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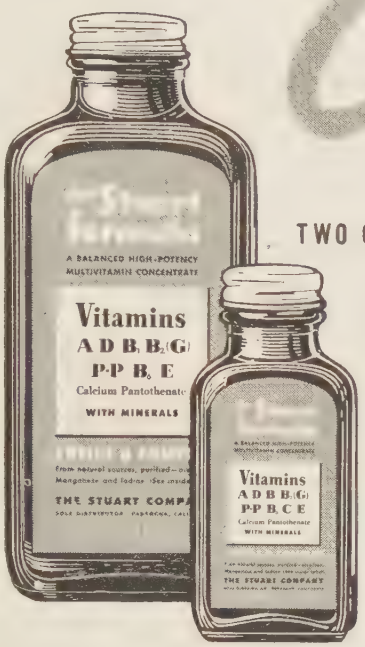

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Vitamin PP (niacin and niacin amide)	30 milligrams
Vitamin B_6 (pyridoxin)	0.2 milligram
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(1) Tuohy, E. L.: Handbook of Nutrition, J.A.M.A., 1943, pp. 365-384. (2) Piersol, G. M., and Bortz, E.: Ann. Int. Med. 12:964, 1939.

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The New York Botanical Garden

This year the New York Botanical Garden completes a half century of distinguished service rendered both to the community and to the nation; and in commemoration of these fifty years of achievement, the National Committee of Sponsors has issued a beautifully illustrated pamphlet entitled, "Significance of Plants in War and Peace". This pamphlet relates the notable accomplishments of The Garden during the past fifty years in medical research, and educational, horticultural and botanical knowledge, as well as the public enjoyment of plants and flowers.

To health and medicine the New York Botanical Garden has made noteworthy contributions in the form of research on medicinal plants, insecticides and disease-inhibiting molds.

In May, 1945, Dr. William J. Robbins, director of the Garden, and two of his associates announced the discovery in Garden laboratories of six new antibiotic substances similar to penicillin in their bacteria inhibiting effects. Their clinical value has not been definitely established, but their possibilities to the future of medicine are believed to be infinite in view of the fact that they open up a whole new line of antibiotic investigations among the numerous members of the family of Basidiomycetes.

In war, the New York Botanical Garden helped the nation to supply trained personnel for the production of essential war products such as quinine, insecticides and rubber. It also helped to train scientists for service in the tropics, furnished seeds and plant materials for war purposes, aided in producing educational films for the Armed Forces and helped to initiate and develop the Victory Garden program on a national scale.

Historically, the achievements of the Botanical Garden have been worthy of its founders' wishes, stimulating and guiding the use of ornamental plants. The war taught many important lessons, among them, almost preeminently, the importance of scientific research. Continued awareness of this need must be made increasingly clear. Into this broad pattern, the Botanical Garden will fit prominently in the next fifty years of its augmented service to the nation.

New Tablets for Vitamin B Complex Therapy

Hoffmann-La Roche, Inc., of Nutley, N.J., recently announced to the medical profession the introduction of Berocca Compound tablets. These exceptionally small, well-tolerated tablets are particularly useful for the prevention and treatment of vitamin B complex deficiencies, for they supply generous amounts of vitamins B_1, B_2, B_6, niacinamide and calcium pantothenate in a form readily acceptable to the most fastidious patient. The tiny, smooth tablets are so easy to swallow that even finicky children will raise no objections to taking them. In spite of their high potency and pharmaceutical elegance, Berocca Compound tablets are so low in cost that they can be prescribed for practically every patient without imposing an economic burden. Berocca Compound tablets may be administered with complete confidence in all disorders in which vitamin B complex therapy is indicated. Clinical samples and literature will be furnished upon request.

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Clinics, 1:282, 1942.

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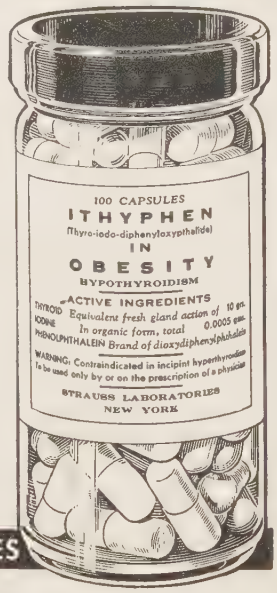

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Semicentennial of Discovery of X Rays

The fiftieth anniversary of the discovery of x rays was the basis of a nationwide educational program held during the week of November 5th to 10th to familiarize the public with the importance of radiology in everyday health. It was emphasized that the x ray is the instrument of highly skilled physicians and not "just a machine operated by any engineer or photographer".

The anniversary celebration was marked by a special tribute to Wilhelm Konrad Roentgen, the German physicist, who on November 8, 1895, discovered that radiations existed which had the power to penetrate opaque materials. At first limited to examination of the bones of the body and organs which resisted the rays sufficiently to make an image on film, new discoveries soon extended the use of the rays, and in the comparatively brief period of fifty years, radiology has become one of the essential specialties in the field of medicine.

The objectives of the campaign, conducted by The American College of Radiology, was designed to inform the public that the x ray is one of the most important instruments in the war against disease, and that the radiologist is a physician especially trained in the use of x rays for diagnosis or treatment. Although every modern hospital has its x ray department, and while physicians, surgeons and dentists depend upon x rays for diagnosis and prognosis in a large portion of their cases, there are only about two thousand practicing radiologists in the United States. The American College of Radiology estimates that at least twice that number are needed to provide adequate health service.

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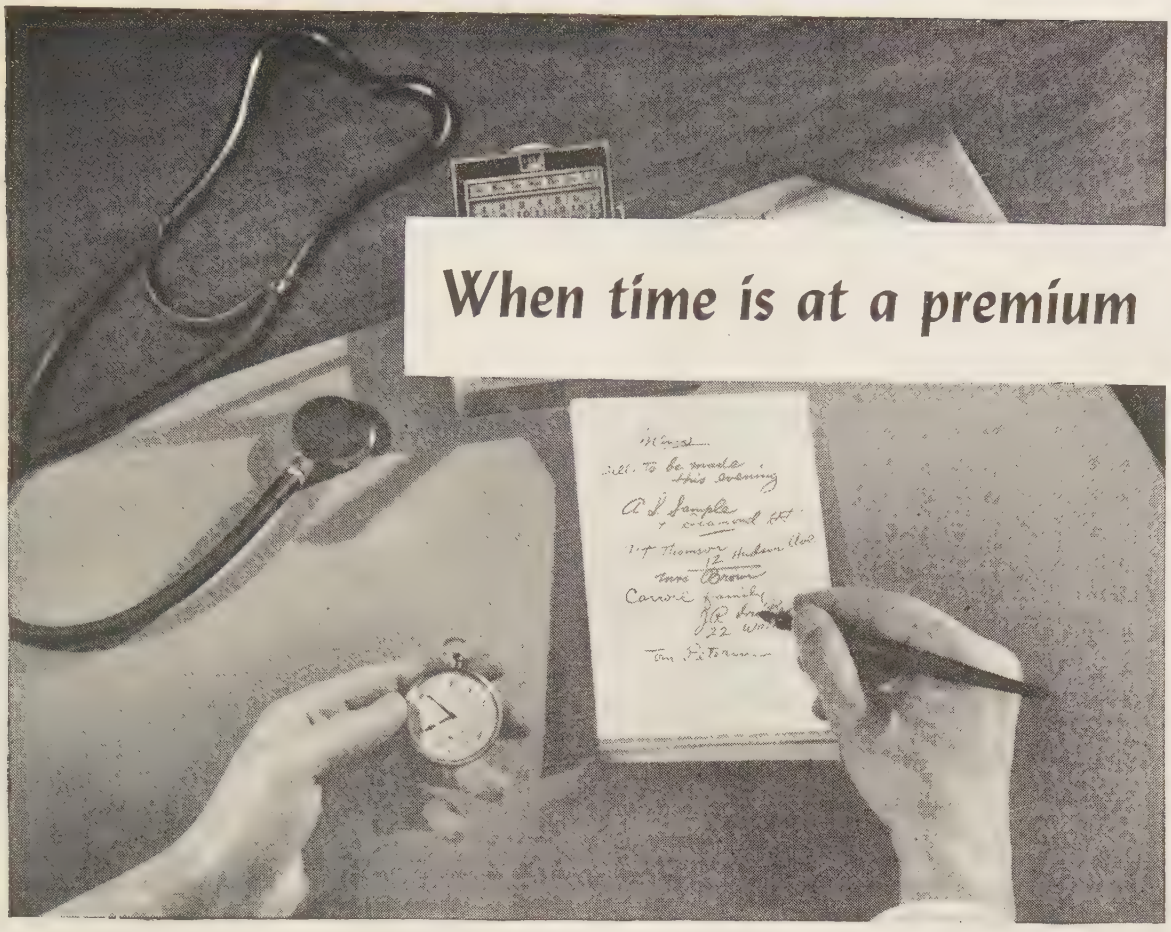

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New Oral Penicillin Tablet

Hoffmann-La Roche, Inc., of Nutley, N.J., have announced a new oral penicillin tablet—Per-Os-Cillin. The advantages of this preparation are of considerable clinical significance. Due to the presence of special long-acting buffers in Per-Os-Cillin, the destructive action of gastric acid upon penicillin is inhibited and a therapeutically effective blood level of the drug is rapidly obtained—usually within thirty minutes after administration. Per-Os-Cillin is stable and retains its potency for a period of not less than nine months. Like all oral penicillin preparations, Per-Os-Cillin should be stored at a temperature not exceeding 15° C. (59° F.). However, there is no likelihood of a loss of potency when Per-Os-Cillin is kept at room temperature for short periods. Thus ambulant patients can carry the prescribed daily dose in pocket or purse, if necessary. Per-Os-Cillin is available in the form of small, smooth tablets which are easily swallowed even by fastidious patients. Each Per-Os-Cillin tablet contains 25,000 units of penicillin calcium in combination with specially selected buffers.

House of Delegates to Meet.—Announcement has been made that the annual session of the House of Delegates of the American Medical Association will be held in Chicago December 3rd to 6th. Dr. Herman L. Kretschmer is president of the Association and Dr. H. H. Shoulders is the speaker of the House of Delegates.

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Plans for a Medical School in Palestine

The first medical school in Palestine will be built on Mt. Scopus, Jerusalem, by the Hebrew University and Hadassah, according to a recent announcement. A committee has been appointed to raise $4,000,000 for the project, and a two-year countrywide campaign to secure the necessary funds will be launched immediately, with headquarters at 16 East Forty-eighth Street. The sum to be raised is expected to meet the cost of building, equipment and five-year maintenance of the school and the enlargement by one hundred beds of the Rothschild-Hadassah Hospital, which is a part of the Hadassah-University Medical Center. The addition will increase the hospital's bed strength to 440. A Hadassah sponsored American committee on medical education, of which Dr. Jonas S. Friedenwald, of Johns Hopkins University, is chairman, and a coordinating committee of the University and Hadassah in Palestine have been working for three years on plans for the all-over needs of the medical school with a view to establishing standards that prevail in the best medical schools of the world. General building plans and departmental organization have been set up.

The teaching center will be nonsectarian and will be known as the Hebrew University-Hadassah Medical School. The plans call for the construction of three main buildings, with provision for future expansion, and for the use of certain departments of the existing Nathan Ratnoff Building which now houses the postgraduate medical school of the university. In addition, the present departments and laboratories of the university and medical center, many of which will be enlarged, will become a part of the proposed school. The new buildings will be erected a short distance from the university and close to the medical center and will be of an architectural design harmonious with the modern style of the group of medical center structures.

It is hoped soon to appoint an administrative officer of the medical school and give him the opportunity to study administrative methods in selected medical schools in the United States and England. It was emphasized that great care would be taken in the choice of a medical faculty.

Among those who will serve on the executive committee of the campaign are Dr. Nathan Ratnoff, chairman of the American Jewish Physicians' Committee, Dr. A. S. W. Rosenbach, president of the American Friends of the Hebrew University. Philip Houtz, former campaign director of the National Jewish Hospital, is the director of the medical school campaign.

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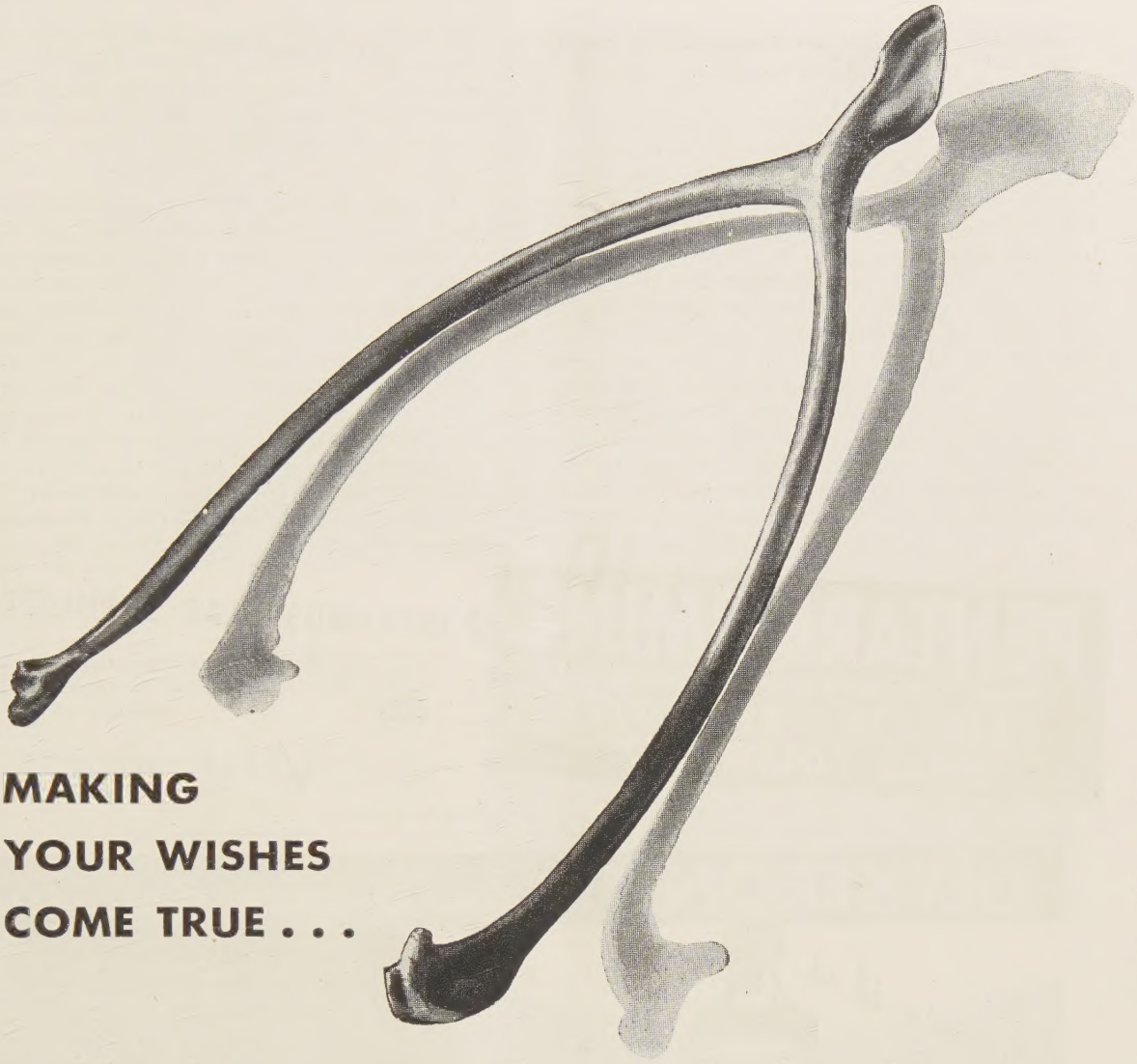

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According to the Air Express Division of Railway Express Agency, six hamsters have been shipped by air express by Colorado University to the Roscoe B. Jackson Memorial Laboratory in Bar Harbor, Maine. These rodents, which are used in experiments to further cancer research, had been inoculated with one or more types of cancer and housed in their own traveling "apartments" which contained individual cells, bedding and food. Their diet consisted of potatoes, carrots and certain dry foods. Scientists consider hamsters better than rats or guinea pigs for experimental purposes, being more susceptible to human diseases.

Air express shipments in recent years have included a variety of insects, birds and animals used for experimental or medical purposes. About two hundred white mice were sent from the Department of Interior, Washington, by clipper express to Puerto Rico for experiments against tropical diseases. There have also been shipments of wasps, birds, toads, insect eggs, moths, leeches and bees, many of which are used by the Department of Agriculture.

Obstetrics and Gynecology Examinations.—The American Board of Obstetrics and Gynecology announces that the next written examination and review of case histories (Part I) for candidates will be held in various cities of the United States and Canada and by special arrangements at Army and Navy Stations on Saturday, February 2, 1946 at 2:00 p.m. Candidates who successfully complete the Part I examination proceed automatically to the Part II examination held later in the year. The place of the Board's Part II examination in May or June 1946 will be announced later. For further information, address Dr. Paul Titus, secretary, 1015 Highland Building, Pittsburgh 6, Pa.

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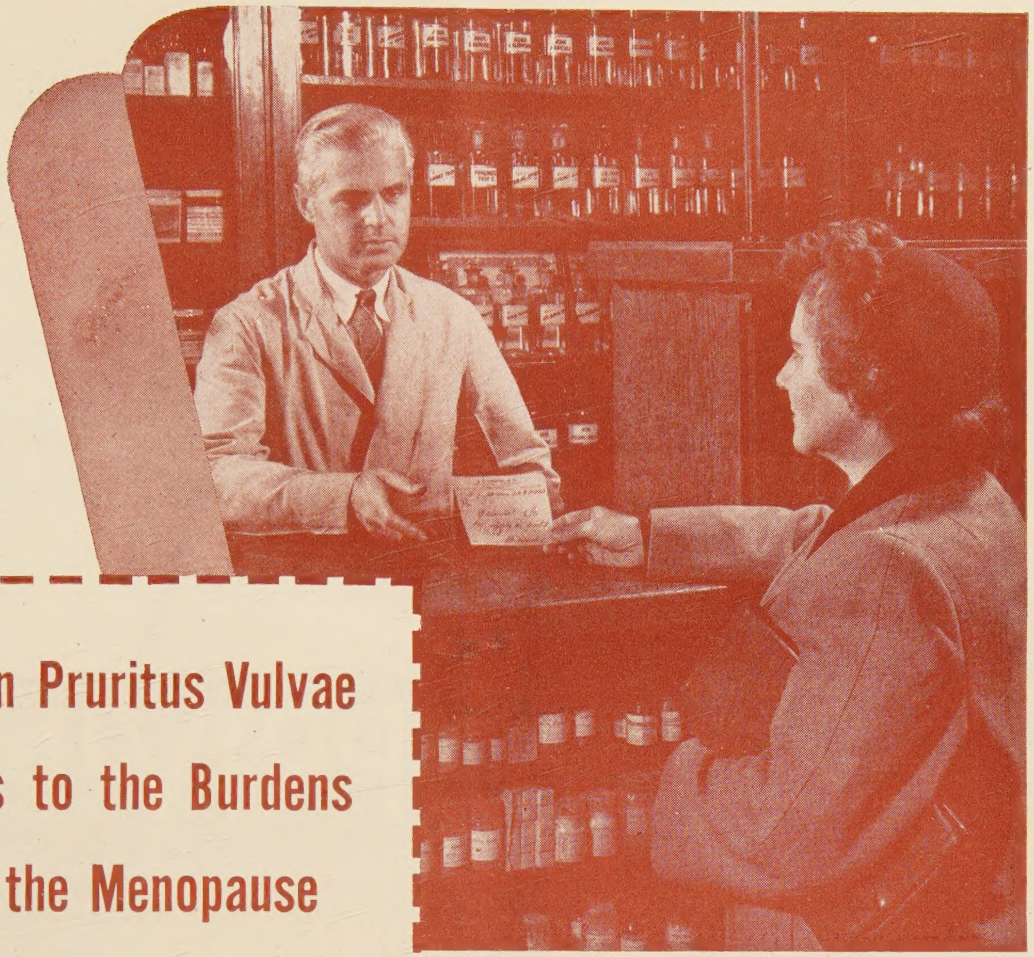

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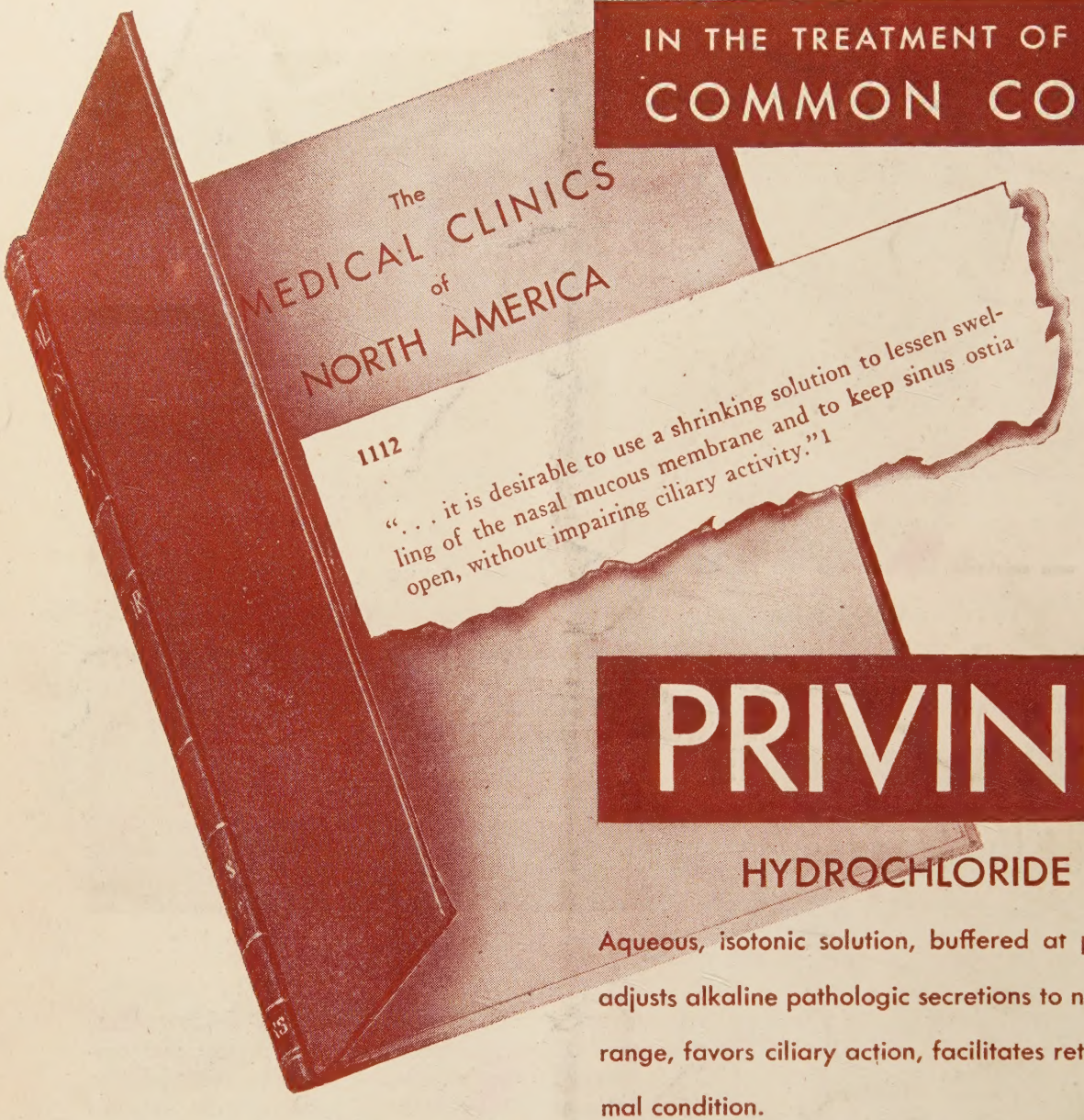
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1. Medical Clinics of North America, 1108, Sept. 1944.

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